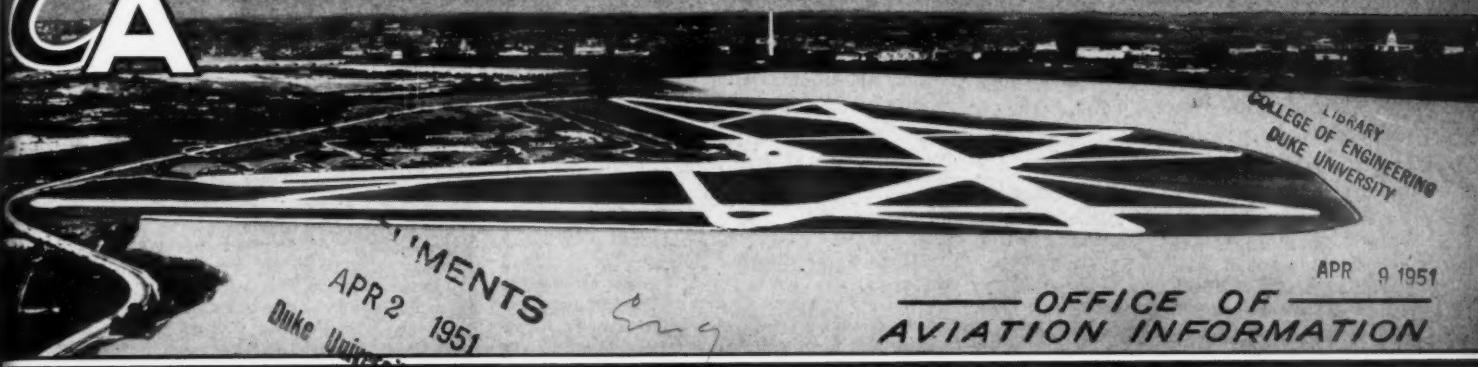


CAA JOURNAL



APR 9 1951
OFFICE OF
AVIATION INFORMATION

60,000 Active Small Aircraft Render Many Vital Services

Civil aviation, in addition to the obvious defense contributions of its big transport and manufacturing segments, performs a wealth of essential services with its 60 thousand active small planes, Donald W. Nyrop, Administrator of Civil Aeronautics, said in an address at Rollins College, Winter Park, Florida, late last month.

Citing news items to show the varied use of small aircraft throughout the Nation, the Administrator said: "The overwhelming majority of these planes are real utility vehicles, contributing to both the national economy and the national defense. More than 10,000 are owned by farmers and ranchers, and approximately 5,000 are operated by professional crop dusters and sprayers. It is impossible to tabulate exactly how many millions of acres of crops and range land they treat annually, but you can judge the tremendous scope of the operation nationally from the report of a CAA agent covering just eight counties near Jackson, Miss.

"In this one area, more than 23 million pounds of insecticides were applied from the air, covering 102 square miles of cotton. To do the job required some 26,000 hours of flying, with each airplane distributing about 3,500 pounds of insecticide per day."

Other Small Plane Uses.—"If we look at the other major uses of small planes, we find, for example, that the petroleum industries employ more than 2,800; transportation and public utilities companies own more than 2,000 for such purposes as inspecting power lines; state, local and federal agencies use more than 3,000 airplanes for such tasks as fighting forest fires.

"The biggest single group of airplanes are the 35,000 owned in the aviation industry itself, and used for such essential purposes as instruction, aerial surveys, charter flights to airline connecting points, and so on.

"Run up a total on these essential uses, and you'll find that the airplane as a luxury vehicle is a mighty rare bird indeed.

"The importance to defense of our larger civil aircraft, those used by scheduled and non-scheduled air carriers, is widely recognized," Mr. Nyrop said. "We should never forget their magnificent accomplishment in rushing men and materials to Korea when the need there was most critical. During August of last year, they were moving 75 tons a

day to the Far East, pushing their planes to the remarkable peak of 12 hours a day usage."

Five Problems for CAA.—"To keep all essential phases of civil aviation operating," he said, "the Civil Aeronautics Administration has had to tackle five problems.

"Number one was to assure the production of new large aircraft needed by our airlines in order to provide the speedy, dependable service that is more essential than ever in a period of national emergency. Acting on the recommendations of the Civil Aeronautics Board which issues the certificates of convenience and necessity for air carriers, we have given Defense Order ratings covering delivery in 1951 and 1952 of 196 new air carrier planes.

"Number two was to make sure that the airlines, both scheduled and large non-scheduled, get the parts and equipment necessary to maintain an efficient operation. As the agency responsible for

(Continued on page 32)

Canada to U.S. Flight Entries Now Simplified

Pilots of private and nonscheduled aircraft are finding it much simpler to enter the United States from Canada as a result of an agreement negotiated between the two governments.

Instead of having to separately notify U. S. Customs and U. S. Immigration authorities, a pilot now merely files a flight plan with the Canadian Department of Transport. The Department of Transport has agreed to transmit it to the CAA communications station nearest the airport of entry. The CAA then notifies U. S. Customs Service as to the expected arrival. Customs, in turn, notifies the U. S. Immigration and Naturalization Services and other governmental agencies concerned. There is no charge to the pilot for these notification services.

Beyond filing a normal visual flight rule or instrument flight rule flight plan, the only requirement for the pilot is to include the number of aliens and the number of U. S. citizens aboard, and a request that the CAA advise U. S. Customs. This additional information is included in the flight plan under "remarks."

This substantial reduction in time and "red tape"

(Continued on page 35)

CAA Employees Awarded Medals for Bravery

Five CAA employees who distinguished themselves by personal bravery were presented with medals last month by Charles Sawyer, Secretary of the Department of Commerce.

Three of them saved passengers from crashed and burning planes, one swam to safety with a drowning man in icy Alaskan waters, and the fifth fought the waves of the wintry Behring Sea for 6 hours to bring two men ashore from a drifting ice floe.

Jean D. Paulson, an Air Route Traffic Controller at Jacksonville, Fla., disregarded the imminent explosion of the tanks on a crashed pursuit plane, released the stunned pilot and carried him out of danger. Lawrence H. Sturkey and Norman B. Horton, Airport Traffic Controllers at Charlotte, N. C., fought flames and rescued two women passengers from a civilian plane which crashed on the Charlotte field.

Richard I. Haggin, an Aircraft Communicator at Juneau, Alaska, while on the dock at Woody Island, saw a fellow workman fall into the dangerous rip tide swirling around the pier. Haggin plunged in and rescued the man after he had gone down the second time.

Floyd N. Wheeler, Eskimo, a General Mechanic in Alaska, put to sea in a 14-foot metal boat with an outboard motor to rescue two Eskimo seal hunters who lost the oars of their skin boat and had been clinging to an ice floe for about 20 hours. It took Wheeler an hour and 20 minutes to reach them, and more than 5 hours to fight his way back to the shore against the strong wind and high seas which sprung a number of rivets in his boat.

The five received Exceptional Service gold medals for heroic action.

Airplane to Play Major Defense Role In Agriculture, Administrator Says

The airplane will play a major defense role in agriculture, protecting needed crops and increasing their yield, Donald W. Nyrop, Administrator of Civil Aeronautics, told the Third National Agricultural Conference in Memphis, Tenn., last month.

"According to a recent news story," the Administrator said, "production experts are stumped by the government's request for 10 million more acres of cotton this year without reducing acreage of other crops." One way to get more out of each acre, he said, is to use the airplane more intensively, both along lines that have proven effective already, and in new ways that American ingenuity can and must develop.

Mr. Nyrop cited figures on increased cotton yield through application of insect-control poison. Comparing lint yield of 30 Texas fields where poison was applied against non-poison fields, the increase averaged 129 pounds per acre and showed an increased net profit of approximately \$40.00 an acre. Other reports from Texas showed the yield increased with the number of poison applications—as high as 270 pounds per acre when 7 applications were made—and from Arizona, a 20 percent increase in seed cotton yield per acre was reported after an airplane duster cotton plots with a DDT-sulphur combination.

Commenting on the necessity for improving the equipment, materials and methods of agricultural aviation while making the best use of what is presently available, he said, "The CAA is proud to be making its contribution. A little over a year ago, your organization outlined for us the flying farmer's concept of what was needed in an agricultural airplane. With these guidelines, we contracted with Texas A&M for the development of a prototype. A dozen companies gave tangible evidence of their interest by contributing parts or services.

Prototype Plane Test Flown.—"On December 1, 1950, the new agricultural airplane made its first flight, and since then it has been put through some 20 hours of test flying.

"While minor modifications are still being made, and the actual flight engineering tests for type certification purposes have yet to be run, we feel safe in saying now that the airplane will meet successfully the exacting goals set for it. We hope to get the ship type-certified by April 1, and make plans and specifications available to any interested U.S. manufacturers."

Mr. Nyrop pointed out two of the safety features of the new plane—a shoulder harness supported by an inertia reel, which allows the pilot flexibility of movement under normal conditions, but protects him in event of a crash, and a dashboard free of any protuberances which can cause injury to the pilot.

Pointing out the relation of agricultural aviation to the defense program, Mr. Nyrop outlined the governmental structure for defense mobilization.

Four agencies have been designated to screen the requests of aviation groups for assistance in obtaining materials, parts and equipment, he said.

The Civil Aeronautics Board is the claimant for complete aircraft used in air carrier transportation.

The Civil Aeronautics Administration is the claimant for all other United States civil aviation requirements, including spares for both air carriers and other aircraft operators, new aircraft other than those required by the air carriers, equipment for the Federal airways system and materials required for construction or maintenance of essential airports.

The Economic Cooperation Administration is the claimant for all aviation requirements of Marshall Plan countries.

The Office of International Trade of the Department of Commerce is claimant for all civil aircraft and spares required by other foreign countries.

Vol. 12 March 20, 1951 No. 3



CAA JOURNAL

DEPARTMENT OF COMMERCE

Charles Sawyer, Secretary

Civil Aeronautics Administration
Donald W. Nyrop, Administrator

Ben Stern, Director
Office of Aviation Information

Issued on the 20th of each month by the Office of Aviation Information. Subscription 75 cents a year in the U. S. and Canada. Foreign countries, \$1.00. Sold by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. The printing of this publication has been approved by the Director of the Bureau of the Budget, June 29, 1949.

apply these standards to aircraft owners requesting priority assistance in their states. Actual issuance of the defense order ratings would be by the CAA regional personnel normally assigned to work with the state authorities."

The standards are not yet ready since they must be coordinated with all interested agencies, Mr. Nyrop said, but agreement has been reached by these agencies that the manufacturer of non-scheduled aircraft should continue. "For the next 3 months, pending a final determination, this production will be at the rate of 2550 units annually," he said. "It is safe to assume that high consideration is and will be given to the requirements of agricultural flying."

Seventeen CAA Workers

On NACA Subcommittees

Seventeen employees of the Civil Aeronautics Administration have been reappointed members of technical subcommittees of the National Advisory Committee for Aeronautics.

Office of Aviation Safety personnel appointed are: John Bosher, Chief, Aircraft Loads Unit—Subcommittee on Seaplanes; George W. Haldeman, Director, Aircraft Service—Committee on Operating Problems; Harvey L. Hansberry, Chief, Power Plants Section—Subcommittee on Aircraft Fire Prevention; Harold D. Hoekstra, Chief Engineer, Aircraft and Components Service—Committee on Aerodynamics; R. B. Maloy, Chief, Engineering Flight Test Branch—Subcommittee on Helicopters; John C. Morse, Chief, Propeller Section—Subcommittee on Propellers for Aircraft; David L. Posner, Chief, Installation Section—Subcommittee on Aircraft Fire Prevention; William T. Shuler, Acting Chief, Structures Section—Subcommittee on Aircraft Structures; Stephen Rolle, Chief, Powerplant Engineering Branch—Subcommittee on Icing Problems; Robert Rosenbaum, Chief, Dynamics Section—Subcommittee on Vibration and Flutter; B. L. Springer, Deputy Chief, Airframe and Equipment Engineering Branch—Subcommittee on Aircraft Loads; Albert A. Vollmecke, Chief, Airframe and Equipment Engineering Branch—Committee on Aircraft Construction; John A. Carran, Engineering Flight Test Branch—Subcommittee on Stability and Control; Ralph S. White, Powerplant Engineering Branch—Subcommittee on Aircraft Fuels; and Stanley Yagielka, Airframe and Equipment Engineering Branch—Subcommittee on Aircraft Structural Materials.

Also reappointed were Donald M. Stuart, Director, Technical Development Center—Committee on Operating Problems; and Robert W. Craig, Aviation Meteorology—Subcommittee on Meteorological Problems.

In making the announcement, Dr. J. C. Hunsaker, NACA Chairman, said that the 1951 appointments were especially important, inasmuch as they call for added service to the country by civilians in a time of national emergency.

Members of the NACA's twenty-seven technical committees and subcommittees are selected because of their technical ability, experience, and recognized leadership in their special field of competence. They serve in a personal and professional capacity without compensation in contributing their knowledge and counsel toward forming of the research programs required to make America stronger in the air.

Responsibilities of subcommittee members include: Advising on problems related to the assigned technological field of the technical committee or subcommittee; reviewing research in progress both at NACA laboratories and at other organizations throughout the country; recommending research projects, and assisting in the coordination of programs.

Through meetings of such leaders in the aeronautical sciences, effective coordination and the gearing of research activity to the accelerated needs of the military, the industry, and air transport operators are achieved. The interchange of ideas and information by subcommittee members has an important and direct bearing on the ability of the nation to continue its progress in aeronautical development.

Domestic Trunkline Service Pattern Is Affected by Recent Board Opinion

The Civil Aeronautics Board in its opinion issued recently in the *Southern Service to the West* case, denied applications of six airlines for new routes between the southeastern part of the United States and south Texas points, on the one hand, and points in the southwest and California on the other hand. The Board provided in its opinion for a number of through services by interchange of aircraft between connecting carriers now operating in the areas to furnish the necessary improved service.

The Board in its opinion reached a number of policy conclusions of wide application which will have an important bearing on the future development of the domestic trunkline service pattern. It was stated in the opinion that the Board's disposition of the new route applications involved was in accord with the policies and standards set by the Civil Aeronautics Act for the Board's guidance. The Board held that the establishment of competitive air transport service on every segment of the domestic air transport system is unnecessary to assure the benefits of competition, inasmuch as competition already prevails over a large part of the Nation's airline network, and the benefits of the competitive spirit generally, if not always, have spread to routes that have no direct competition.

Proposals for sound route extensions presented in the future, the Board said, when properly supported, can expect to receive the Board's approval. It said, however, that in view of the large expansion of the domestic route pattern during the past decade, the enormous increase in the transport capacity, the failure of the postwar traffic to reach the level anticipated, the critical economic situation which only recently confronted the industry, and other factors, the conclusion would seem to be inescapable that the problem of reconciling any substantial trunkline route expansion with the statutory mandate looking toward the development of an economically sound air transport system would present a major, if not insurmountable, task, and that in such circumstances, consideration should be given to interchange operations as an available means for meeting future air transport needs.

Standards To Be Followed.—The Board also announced that in authorizing through service by interchange in this and future cases, it will consider among other things the following principles or standards as guides to judgment: The proposed interchange should cause minimum interference with the existing route pattern and therefore should not be dependent upon new route extensions; the improved through service should be provided over a reasonably direct route; and the interchange should leave substantially undisturbed the historic participation of existing carriers in the traffic served and should not cause undue diversion. It was the Board's view that interchange of aircraft between air carriers, if properly applied, can be beneficial to both the public and the industry as a means of providing through service without the wasteful consequences that follow un-economic competition.

In accordance with the policies announced in this decision, the Board denied the applications of American, Eastern, Delta, Continental, Braniff and National for new routes or route extensions.

At the same time the Board found that the public convenience and necessity required through service by interchange of aircraft by Delta and American between Atlanta and Birmingham on Delta's route No. 24 and points west of Dallas or Fort Worth on American's route No. 4, and between New Orleans on route No. 24 and route No. 4 points; and National, Delta and American between Miami, Tampa, New Orleans, Dallas and Fort Worth and

points west of Fort Worth on American's route No. 4. The Board also found that the public interest would be served by a voluntary interchange arrangement between Braniff, Continental and American to provide one-plane service to the west for Houston-Austin-San Antonio traffic. The Board's order provided that the record in this case be held open for 60 days to permit the filing of any agreements or modification thereof submitted by the carriers in conformity with the foregoing findings.

Member Lee Dissents.—Member Josh Lee dissented from the decision of the majority on the merits and the procedure. He stated that the majority has failed to establish a logical southern transcontinental route which would provide service from Miami to Tampa, New Orleans, Houston, Austin, San Antonio, El Paso or Albuquerque, Phoenix, Los Angeles and San Francisco. Instead, Lee said, the majority has created an inferior and inadequate route pattern which perpetuates a monopoly over one of the strongest route segments in the country and completely eliminates Houston, Austin and San Antonio from transcontinental service. He pointed out that the logical southern transcontinental route serving the Houston-San Antonio gateway would provide new single-plane service for more than 40,000 passengers annually as compared with less than 13,000 passengers for the route selected by the majority.

Member Lee took the position that the interchanges selected by the majority are improper and illogical because the interchange partners have conflicting interests and must short-haul themselves. He pointed out that Braniff stands to lose \$56,000 annually and Delta about \$200,000 annually by short-hauling themselves in order to participate in the interchanges selected by the majority. Mr. Lee also disagreed with the majority's decision to funnel the traffic from all four interchanges into American's Route 4 at either Dallas or El Paso.

With respect to procedure, Member Lee stated that the majority's decision prejudices other pending interchanges and deprives the Board of the opportunity of comparing the merits of the different interchange possibilities before making its decision. Lee took the position that having adopted a procedure which postpones service for Houston, Austin and San Antonio until after another proceeding has been completed, the majority should have consolidated other similar interchange proposals with the American-Continental-Braniff interchange which the majority found to be in the public interest. The majority, Lee stated, has denied the parties a fair opportunity to be heard and has deprived the Board of being able to select the best possible interchange arrangement. This is a procedural error, Lee said, which if not legally defective, is regrettable from a policy standpoint.

Weather Data for Pilots Provided

"*Realm of Flight*," a CAA publication providing practical information about the effect of atmospheric conditions upon flight, is on sale for 60 cents by the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

Board Vetoes Proposal To Rescind CAR 51

The Civil Aeronautics Board announced last month that it would not "at this time" adopt the proposal of its Bureau of Safety Regulation to rescind Part 51 of the Civil Air Regulations, "Ground Instructor Rating." Part 51 provides for the certification of ground instructors for employment in certificated flying schools.

The Bureau in proposing the rescission of Part 51 believed that in line with the philosophy of placing responsibility for performance on the organization rather than on the individual, the schools should be responsible for obtaining competent instructors. Since the Civil Aeronautics Act does not require a ground instructor to be certificated, and since there appeared to be sufficient qualified persons available for this work, the Bureau believed that there was no further need for the Federal government to remain in this field.

However, an unusually large number of comments from industry were received in response to the draft release circulated to interested parties. The majority of replies favored the retention of Part 51. The more cogent reasons advanced for retention are:

(1) A majority of the States require a teacher's certificate before an individual can teach aeronautical subjects within the state. The ground instructor certificate is accepted by many states in lieu of a teacher's certificate. It was pointed out in the comments that should the ground instructor certificate be dropped, the states would feel obligated to establish their own standards, which might result in such a variety of requirements that no standardization would remain.

(2) While many of the replies received were in agreement with the principle of delegating more responsibility to the school, they stated that action should not be taken at this time in view of the probable rapid acceleration in the need for ground instructors and the possibility of a tendency to break down established standards.

(3) The elimination of ground instructor certificates might result in considerable hardship on aviation vocational schools which would have to replace current holders of such certificates with persons holding state teacher credentials.

After consideration of the comments received from interested parties the Board has determined to retain Part 51 as a part of the Civil Air Regulations.

ANC-23 Bulletin Now on Sale

ANC Bulletin number 23, "Sandwich Construction for Aircraft, Part I—Fabrication, Inspection, Durability and Repair" was issued last month by the subcommittee on Air Force-Navy-Civil Aircraft Design Criteria of the Munitions Board Aircraft Committee.

This bulletin was prepared by the Forest Products Laboratory, Forest Service, United States Department of Agriculture and ANC-23 Panel on Sandwich Construction for Aircraft, subcommittee on Air Force-Navy-Civil Aircraft Design Criteria. The technical material in this bulletin is based principally on data obtained in tests conducted at the U. S. Forest Products Laboratory, supplemented by that obtained in a survey of current sandwich design and fabrication methods in United States aircraft plants.

Copies of ANC-23, Part I, may be obtained at 55 cents each from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C. Orders should be accompanied by check or money order made payable to the Superintendent of Documents. Currency is sent at owner's risk.

Official Actions Civil Aeronautics Board

Regulations

Amdt. 29-2 Effective March 20, 1951

Part 29 currently establishes physical standards of the first, second, and third class. One of the first-class standards, which are currently required to be met only by applicants for airline transport pilot ratings, is that the individual shall have normal color vision. Applicants required to meet the second-class standards are required to have "normal fields of vision," which has been interpreted as requiring those applicants to have normal color vision. Commercial pilots, flight navigators, and flight engineers are currently required by Parts 20, 22, 34, and 35 to meet the second-class physical standards. The third-class physical standards, currently required by Parts 20, 22, and 35, respectively, to be met by student and private pilots, free balloon pilots, and flight radio operators, include no color vision requirements.

The amendments now being promulgated require individuals being examined in accordance with the second and third-class medical standards to recognize aviation signal red, aviation signal green, and white. They become applicable to current holders of airman certificates at the time they apply for renewal of their medical authorizations. In the event that such an individual is unable to distinguish those aviation colors, he is required to demonstrate to an authorized representative of the Administrator his ability to interpret such signals under conditions usually encountered in flight. If the individual can pass such a practical examination, he will be issued a waiver and will then become eligible for the issuance of an airman certificate. It is anticipated that this color vision examination will be administered by the physician conducting the physical examination. However, if the physician does not have the equipment to conduct this test, it is also anticipated that the Administrator will provide a means whereby such individual can take the aviation signal color test. In these latter instances it is believed that the test can be administered without requiring the individual to incur the expense of accomplishing a flight test to determine his ability to distinguish aviation colors. Only where the individual cannot distinguish such colors should he be required to undergo a flight test. Then, if he can accomplish the flight test, he will be issued a waiver. In each case of the issuance of a waiver based upon the practical examination, the individual will not thereafter be required to retake that examination.

When the individual cannot meet the proposed color vision requirements, including the practical examination, he can be issued an airman certificate, but such certificate will be appropriately endorsed to prohibit the exercise of the privileges authorized by the airman certificate except under conditions, or with the use of equipment, such as two-way radio, which would not require the ability to distinguish aviation signal colors. For example, a pilot who is unable to meet the color vision requirements in any way may be authorized to fly only with two-way radio communications available or under conditions where aviation lights would not be used for communication.

In addition, the near vision requirements of Part 29 are being amended to establish the use of correcting lenses as an alternate to meeting requirements by natural vision. This will permit an individual to meet the first-class physical standards without issuance of a formal waiver as is currently the case.

Part 29, § 29.2 (e) (2), prescribes that reclining blood pressure shall not exceed 135 mm. systolic, nor 90 mm. diastolic, for the first-class physical standard which at present applicants for airline transport pilot ratings are required to meet. The amendment hereby adopted eliminates this general restriction and establishes instead specific limitations based upon age, with limited adjustments where the results of a complete cardiovascular examination are shown to be normal.

The new limitations give recognition to the normal tendency of blood pressure to increase with age, and, in their operation, would allow the pressure readings of an applicant to be slightly above the limits set for his age. If, in effect, examination shows no evidence of heart disease, it is believed that this change in the regulation would, consistent with safety, permit trained personnel to fly at advanced ages with more effective utilization of their experience, and would afford more meaningful data for research and statistical purposes.

Amdt. 20-10 Effective March 20, 1951

Changes color vision requirements to conform with changes in Part 29.

Amdt. 22-3 Effective March 20, 1951

Changes color vision requirements to conform with changes in Part 29.

Amdt. 33-3 Effective March 20, 1951

Changes color vision requirements to conform with changes in Part 29.

Amdt. 34-2 Effective March 20, 1951

Changes color vision requirements to conform with changes in Part 29.

Amdt. 35-2 Effective March 20, 1951

Changes color vision requirements to conform with changes in Part 29.

Airline Orders

E-4949 dismisses complaint of Eastern Air Lines in the matter of the extension and retention by Chicago and Southern Air Lines of its 30-day round trip excursion fares between certain points in the United States and Havana, Cuba (December 19).

E-4950 amends order serial No. E-4646 in the *North Central Route Investigation* case (December 19).

E-4951 grants Edgar A. Stewart, d. b. a. Stewart Air Service, exemption for 2 years from stated provisions of the Act insofar as they would prevent it from engaging in interstate air transportation of persons and property; terminates exemption granted by section 291; otherwise denies and dismisses (December 19).

E-4952 authorizes Resort Airlines to suspend service until May 1, 1951, to Kingston-Montego Bay, Jamaica (December 19). E-4953 dismisses applications of Checker Taxi Co. and 21 other applicants for certificates (December 20).

E-4954 opinion and order overrule exceptions to opinion and order No. E-4606 filed by certain air carriers in the matter of assembly, accumulation, and distribution rules; terminates stay and cancels stated tariff provision (December 20).

E-4955 denies Cook Cleland Catalina Airways exemption which would permit it to engage in certain air transportation as authorized by part 291; terminates temporary exemption (December 21).

E-4956 extends from December 30, 1950, to March 29, 1951, the period of suspension of fares proposed by Trans Texas Airways (December 21).

E-4957 grants Alaska Airlines temporary exemption from the provisions of section 401 (a) of the Act, so as to permit it to carry mail between Fairbanks, Alaska, and stated points (December 21).

E-4958 orders Robinson Airlines Corp. to show cause why the Board should not fix certain temporary mail rates over its entire system (December 21).

E-4959 denies petition of the city of San Angelo, Tex., for reconsideration in the *Pioneer Certificate Renewal* case (December 21).

E-4960 denies the city of Beloit, the city of Janesville, Wis., and the Rock County Airport Committee leave to intervene in the *Wisconsin Central Certificate Renewal* case (December 21).

E-4961 grants Capital Airlines temporary exemption from the provisions of section 401 (a) of the Act and its certificate for route No. 19, so as to permit it to serve stated points on certain all-cargo flights, subject to a provision (December 21).

E-4962 grants Northwest Airlines temporary exemption from provisions of section 401 (a) of the Act and its amended certificate for route No. 3, so as to serve Chicago on certain all-cargo flights (December 21).

E-4963 orders Resort Airlines to cease and desist from interstate and foreign air transportation without a certificate and from other practices in violation of the provisions of the Act (December 21).

E-4964 grants certain airlines permission to intervene in the matter of the application of American Air Transport for an exemption (December 21).

E-4965 fixes certain temporary mail rates for Central Airlines over its entire system (December 22).

E-4966 grants certain airlines leave to intervene in the matter of the application of Miami Airlines for an exemption (December 22).

E-4967 denies petition of Pan American Airways for reconsideration of order serial No. E-4477 (December 26).

E-4968 orders Oxnard Sky Freight to appear before the Board on January 16, 1951, and show cause why its letter of registration should not be suspended during pendency of this proceeding (December 27).

E-4969 fixes certain temporary mail rates for Pan American World Airways in its trans-Atlantic operations (December 27).

E-4970 orders Edward A. Brennan, d. b. a. Lon Brennan Air Service, to show cause why the Board should not fix certain temporary mail rates over its routes certificated for transportation for mail (December 27).

E-4971 opinion and order issue amended certificates to Alaska Airlines and Northern Consolidated Airlines in the *Additional Service to Bethel and Nome* case; otherwise dismiss or deny applications. Approved by the President December 27, 1950 (September 15).

E-4972 institutes an investigation into and suspends from December 28, 1950, to March 28, 1951, certain commodity rates proposed by American Airlines (December 27).

E-4973 approves interlocking relationships existing as a result of the holding of certain positions by John B. Hyde in Railway Express Agency and other companies (December 28).

E-4974 authorizes Wisconsin Central Airlines to suspend service temporarily at St. Cloud, Minn., until 60 days after final determination by the Board of the *Wisconsin Central Certificate Renewal* case (December 28).

E-4975 institutes an investigation into, suspends, and defers the use of certain fares proposed by Air Transport Associates in its operations between the United States and Alaska (December 28).

E-4976 opinion and order direct Alaska Airlines, Pacific Northern Airlines, Northern Consolidated Airlines, and Wien Alaska Airlines to show cause why the Board should not order the alteration, amendment, or modification of their certificates so as to replace them with proposed certificates; each proceeding so instituted to be assigned a separate docket number and set down for separate hearings (December 28).

E-4977 grants certain petitioners leave to intervene in the *Wisconsin Central Certificate Renewal* case (December 28).

E-4978 grants certain petitioners leave to intervene in the *North Central Route Investigation* case (December 28).

E-4979 dismisses applications of the Charles H. Babb Co. and the American Air Export & Import Co. for certificates (December 28).

E-4980 grants certain petitioners leave to intervene in the *Indiana-Ohio Local Service* case (December 28).

E-4981 amends order serial No. E-2364, so as to extend until December 31, 1951, the exemption granted Empire Air Lines to serve Pasco, Wash., on its route No. 78 (December 29).

E-4982 denies Continental Charters exemption which would permit it to engage in certain air transportation as authorized by part 291; terminates temporary exemption (December 29).

E-4983 denies Sourdough Air Transport exemption which would permit it to engage in certain air transportation as authorized by part 291; terminates temporary exemption (December 29).

E-4984, E-4985, and E-4986 opinion and orders grant Robert L. Hall, d. b. a. Bob Hall's Air Service, and Grenold Collins and Dorothy Collins, d. b. a. Collins Air Service, exemption, subject to certain conditions, for 3 years from the provisions of section 401 (a) of the Act, insofar as they would otherwise prevent it from engaging in air transportation of persons and property between stated points in Alaska; otherwise deny applications. Approved by the President December 28, 1950. (November 22).

E-4987 amends order serial No. E-4444 in the *United-Western Acquisition of Air Carrier Property* case (December 29).

E-4988 grants S. S. W., Inc., exemption for 2 years, subject to stated terms, conditions, and limitations, from the provisions of section 401 (a), 404 (a), and 405 (e) of the Act; terminates temporary exemption granted by part 291; otherwise denies (December 29).

E-4989 denies Freight Air exemption which would permit it to engage in certain air transportation as authorized by part 291; terminates temporary exemption (December 29).

E-4990 authorizes Ralph Cox, Jr., d. b. a. Ocean Air Tradeways, to transfer letter of registration No. 292 to United States Overseas Airlines; grants United States Overseas Airlines exemption for 6 months from the provisions of section 401 (a) of the Act and part 291, insofar as they would otherwise prevent it from engaging in certain air transportation concerned with military operations, all subject to stated provisions; otherwise denies (December 29).

E-4991 denies request of Mid-Continent Airlines in the matter of the *North Central Route Investigation* case (December 29).

E-4992 extends to April 15, 1951, exemption granted Chicago and Southern Air Lines by order serial No. E-4429, subject to the same terms and conditions (December 29).

E-4993 dismisses application of E. Anthony & Sons, Inc., d. b. a. Massachusetts Airlines, for an exemption (December 29).

E-4994 grants certain petitioners leave to intervene in the *Mid-Continent Route 80 Renewal* case (December 29).

E-4995 supplemental opinion and order deny petition of the city of Lubbock, N. C., for reconsideration of opinion and order serial No. E-4853 (December 29).

E-4996 institutes investigation and suspension of fares, rules, and regulations for air transportation of passengers proposed by Eastern Air Lines; consolidates the proceeding into the consolidated proceeding in docket No. 4786 (January 2).

E-4997 denies motion of American Air Transport for consolidation of dockets Nos. 3721 and 3908 in the matter of its applications for certificate and exemption; denies motion of Eastern Air Lines for dismissal of proceedings in docket No. 3908 (January 2).

E-4998 grants National Airlines leave to intervene in the matter of an application of Modern Air Transport for an exemption (January 3).

E-4999 approves interlocking relationship arising out of the holding by Albert V. Leslie the position of treasurer of Hughes Tool Co. while serving as a director of Trans World Airlines (January 4).

E-5000 dismisses application of Michigan Helicopter Air Transport in docket No. 2906 and of Bekins Van Lines Co. in docket No. 2937 (January 8).

E-5001 denies Wisconsin Central Airlines leave to intervene in the *Indiana-Ohio Local Service* case (January 4).

E-5002 opinion and order direct Meteor Air Transport to cease and desist from engaging in operations in violation of section 401 (a) of the Act and from any air transportation, except to the extent permitted by part 291 of the Board's economic regulations (January 4).

E-5003 approves agreements between IATA and Pan American World Airways, various air carriers, foreign air carriers, and other carriers embodied in resolutions adopted by mail vote of IATA traffic conference No. 2 relating to rates (January 5).

E-5004 approves interlocking relationship arising out of the election of Warren Lee Plesner to the position of director of Linee Aeree Italiane while serving as a director and chairman of the board of Trans World Airlines (January 9).

E-5005 amends order serial No. E-3874 in the matter of mail rates of Florida Airways over its entire system (January 8).

E-5006 grants certain petitioners leave to intervene in the matter of the west coast passenger fare structure (January 8).

E-5007 opinion and order cancel "aircoach" fare proposed by Eastern between Miami, Fla., and San Juan, P. R. (January 8).

E-5008 authorizes Ozark Airlines to omit service on segment 5 (a) of route No. 107 during hours of darkness at Cape Girardeau, Mo., and Cairo, Ill., with stated provision, until such time as adequate airport facilities are provided for night operations; otherwise denies (January 8).

E-5009 grants city of Falls City, Neb., and the Lincoln, Neb., Chamber of Commerce leave to intervene in the *Additional Service to State of Kansas* case (January 9).

E-5010 dismisses application of Metropolitan Air Commuting for certificate (January 9).

E-5011 amends orders serial Nos. E-4446 and E-4411 so as to extend the exemptions of Alaska Airlines and Overseas National Airways from stated provisions of the Act and of the economic regulations, insofar as they would prevent Alaska and Overseas from engaging in air transportation pursuant to military contracts (January 9).

E-5012 orders Mid-West Airlines, its officers, employees, agents, successors, or assigns immediately to cease and desist from certain practices concerning compensation of pilots (January 9).

E-5013 opinion and order amend certificate of Pan American World Airways issued pursuant to order serial No. E-3797, so as to eliminate Cat Cay, Bahama Island, as an intermediate point on its route between Miami and Nassau; approved by the President January 9, 1951 (December 18).

E-5014 orders suspension until April 9, 1951, and institutes investigation of certain rate adjustments proposed on behalf of Capital Airlines, U. S. Airlines, the Flying Tiger Line, and Slick Airways; consolidates dockets Nos. 4814, 4815, and 4801 into this proceeding (January 9).

E-5015 grants Northern Consolidated Airlines temporary exemption, with stated provisions, from the provisions of section 401 (a) of the Act, so as to permit it to engage in air transportation of persons, property, and mail over a regular route in Alaska (January 9).

E-5016 dismisses application and motion of Grand Rapids, Minn., for consolidation of docket No. 4795 with docket No. 4387 in the *Wisconsin Central Certificate Renewal* case (January 10).

E-5017 grants Northern Consolidated Airlines exemption for 60 days from the provisions of section 401 (a) of the Act, so as to permit it to serve Poorman on route A-6 (January 9).

E-5018 grants Resort Airlines and Nationwide Air Transport Services exemption, subject to stated provisions, from the

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provisions of section 408 of the Act, insofar as they would otherwise prevent performance of the agreement dated December 21, 1950, between Nationwide and Resort (January 10).

E-5019 denies Pan American World Airways exemption from a restriction in order serial No. E-4697 providing that Pan American may not, on the same flight, serve Tokyo and a point within the Island of Okinawa (January 10).

E-5020 denies application of Northwest Airlines for amendment of Board order serial No. E-4091 so as to permit it to suspend service temporarily at Eau Claire, Green Bay, and Wausau, Wis. (January 4).

E-5021 denies petition of Eastern Air Lines for reconsideration of the Board's order serial No. E-4830 so as to permit the operation of all-cargo flights directly between designated points (January 10).

E-5022 denies petition of Delta Airlines for reconsideration of the Board's order serial No. E-4833 so as to permit the operation of all-cargo flights between designated points (January 10).

E-5023 grants Wien Alaska Airlines exemption for 60 days from provisions of section 401(a) of the Act, so as to permit it to engage in air transportation of persons, property, and mail between Point Barrow and Meade River, Alaska (January 10).

E-5024 approves agreement between Eastern Air Lines and Northeast Airlines relating to lease of aircraft for service by Eastern between New York and Washington, D. C.; exempts, subject to stated conditions, both companies from the provisions of section 408 so as to permit performance under the agreement (January 10).

E-5025 grants Quaker City Airways exemption for 6 months, with stated provisions from the provisions of section 401(a) of the Act and of order serial No. E-4476, so as to permit Quaker to operate one flight daily from New York to Boston (January 11).

E-5026 amends order serial No. E-1538 in the matter of an application of Northwest Airlines for an exemption from the provisions of section 401(a) of the Act and its certificate for route No. 3 (January 16).

E-5027 grants Seattle Chamber of Commerce, Eureka Chamber of Commerce, and King County of Seattle, Washington, leave to intervene in the matter of the West Coast passenger fare structure (January 11).

E-5028 denies Mid-Continent Airlines and the Omaha Chamber of Commerce leave to intervene in the *Additional Service to Kansas* case (January 12).

E-5029 dismisses proceeding of investigation and suspension instituted by order serial No. E-4776 in Docket No. 4708 (January 12).

E-5030 fixes certain temporary mail rates for Northwest Airlines in the transpacific operations (January 12).

E-5031 fixes certain temporary mail rates for Edward A. Brennan d/b/a Lon Brennan Air Service over its routes certified for the transportation of mail.

E-5032 opinion and order approve, subject to certain provisions, transfer of the assets and certificates of Edward A. Brennan d/b/a Lon Brennan Air Service to Robert Dale Byers and Gladys Byers, a partnership d/b/a Byers Airways. Approved by the President January 12 (November 27).

E-5033 opinion and order revoke Letter of Registration No. 1913 issued to Arrow Airways and order it to cease and desist from air transportation, effective February 15 (January 16).

E-5034 denies U. S. Aircoach exemption which would permit it to engage in certain air transportation as authorized by Part 291; terminates certain temporary exemption (January 15).

E-5035 grants Transocean Air Lines exemption from the provisions of section 401(a) of the Act and Part 291, so as to permit it to engage in certain foreign air transportation between Honolulu, T. H., and Bora-Bora, Society Islands, subject to stated provisions (January 16).

E-5036 permits Slick Airways to inaugurate service immediately at Columbus, Ohio, on route No. 101 through use of Port Columbus Municipal Airport (January 16).

E-5037 consolidates applications of Mid-West Airlines, Docket No. 4748, and Ozark Airlines, Docket No. 4760, with *The North Central Route Investigation* case, Docket No. 4603, et al. (January 16).

E-5038 withdraws from public disclosure certain information filed with the Board by American Overseas Airlines in the matter of mail rates over its entire system (January 17).

E-5039 withdraws from public disclosure certain information filed with the Board by Pan American-Grace Airways in the matter of mail rates over its entire system (January 17).

E-5040 amends order serial No. E-5023 in the matter of an agreement between Eastern Air Lines and Northeast Airlines relating to lease of aircraft (January 17).

E-5041 authorizes All American Airways to suspend service at Warren, Pa., on segment 4 of route No. 97, until airport facilities are adequate for scheduled air carrier operations (January 17).

E-5042 grants the Air Line Pilots Association, International, and certain other petitioners leave to intervene in the *Indiana-OH Local Service* case (January 17).

E-5043 grants City of Duluth, Minn., and the City of Fond du Lac, Wis., leave to intervene in the *Wisconsin Central Certificate Renewal* case (January 17).

E-5044 grants Chamber of Commerce of Kansas City, Mo., and the Tulsa Chamber of Commerce, Tulsa, Okla., leave to intervene in the matter of the application of Mid-Continent Airlines for amendment of its certificate for route 26 (January 17).

E-5045 dismissed application of Zigler Flying Service (January 17).

E-5046 grants City of Kansas City, Mo., leave to intervene in the *Mid-Continent Route 20 Renewal* case (January 17).

E-5047 grants the Postmaster General, the City of Winona, Minn., the Chamber of Commerce of Winona, and the Sioux City Chamber of Commerce leave to intervene in the *North Central Route Investigation* case (January 17).

E-5048 dismisses application for certificate and petitions for leave to intervene in Dockets Nos. 2360, 2469, 2475, 2595, 2615, 2725, 2966, 3106, 3137, 3229, 3354, 3619, and 3885 (January 19).

E-5049 grants Valley Isle Aviation exemption to May 8, 1951, from the provisions of section 401 of the Act and Part 291 so as to permit it to engage in air transportation of persons and property without limit as to regularity and frequency of service between Puunene and Kahului, and Hana and Maui, T. H., subject to stated provisions (January 19).

E-5050 amends order serial No. E-472 in the *North Central Route Investigation* case (January 19).

E-5051 dismisses proceeding of investigation and suspension instituted by order serial No. E-4865 (January 19).

E-5052 fixes temporary mail rate for Robinson Airlines Corporation over its entire system (January 22).

E-5053 extends to December 31, 1951, approval of agreement CAB No. 4070 between Northwest Airlines and Hong Kong Airways (January 22).

E-5054 approves agreements embodied in resolutions of Traffic Conference No. 2 of IATA relating to rates (January 22). E-5055 consolidates applications of All American Airways, Docket No. 4015, and the Asbury Park Chamber of Commerce, Docket No. 472, into a single proceeding to be known as the "Service to Asbury Park, N. J., case," Docket 4015 et al.; grants certain petitioners leave to intervene (January 22).

E-5056 grants Transocean Air Lines exemption, subject to stated provisions, from the provisions of section 401(a) of the Act and Part 291, so as to permit it to make one flight pursuant to a contract with the High Commissioner of the Pacific Trust Territories, in foreign air transportation from Guam to Nandi, Fiji Islands (January 22).

E-5057 grants, subject to stated provision, F. G. Moor, d/b/a Southern Air Transport, exemption from the provision of section 291.18 and Part 290 insofar as they would otherwise prevent the transfer by Moon of Letter of Registration No. 61 to Southern Air Transport and require notice of application in Docket No. 4736 upon interested parties (January 23).

E-5058 amends order serial No. E-2949 which granted Trans World Airlines exemption from the provisions of section 401(1) of the Act (January 23).

E-5059 denies the petition of the Chamber of Commerce of Grants Pass and Josephine County, Oregon, for leave to intervene in the matter of the West Coast passenger fare structure (January 23).

E-5060 dismisses application of Island Airways for a certificate (January 23).

E-5061 grants the State of Illinois Department of Aeronautics and the State of Michigan Department of Aeronautics and Inter-Peninsula Communications Commission leave to intervene in the *Wisconsin Central Certificate Renewal* case (January 23).

E-5062 grants the cities and the Chambers of Commerce of Anderson and Bloomington, Indiana, and the State of Illinois Department of Aeronautics leave to intervene in the *Indiana-OH Local Service* case (January 23).

E-5063 grants the State of Illinois Department of Aeronautics leave to intervene in the *North Central Route Investigation* case (January 23).

E-5064 denies motions of certain intervenors to dismiss the proceeding in the matter of the West Coast passenger fare structure (January 23).

E-5065 orders Colonial Airlines to show cause why the Board should not make final the findings and conclusions set forth in an attached statement and upon the basis thereon fix, determine, and publish mail rates to be paid Colonial over its Bermuda routes on and after April 21, 1948 (January 24).

E-5066 denies petition of Coastal Airlines for consideration of Order serial No. E-4632; revokes temporary exemption (January 24).

E-5067 supplemental opinion and order amend order serial No. E-4634 in the matter of the *North Atlantic Route Transfer* case (January 24).

E-5068 authorizes Mid-West Airlines to suspend service for 1 year at Lexington, Neb., on segment 1, Fremont, Neb., on segment 2, and Atlantic, Iowa, on segment 3 of route No. 90 (January 24).

E-5069 denies application of Mid-West Airlines for an exemption from the provisions of section 401(a) of the act as far as they would prohibit it from serving Shenandoah, Iowa, on segment 3 of route No. 90 (January 24).

E-5070 denies petition of California Eastern Airways to remit the examiner's report and to stay further proceedings in the *Transcontinental Coach Type Service* case (January 24).

E-5071 grants Braniff Airways, Chicago and Southern Air Lines, and Trans World Airlines leave to intervene in the *North Central Route Investigation* case (January 24).

E-5072 amends order serial No. E-4455 which granted Slick Airways a temporary exemption from the provisions of section 401(a) of the Act; defers request of American Airlines (January 24).

E-5073 amends order serial No. 4420 to include certain interlocking relationships between Railway Express Agency and Jacksonville, Gainesville, and Gulf Railway; Seaboard Air Line Railroad Company; Macon, Dublin and Savannah Railroad Company; and Georgia, Florida and Alabama Railroad Company (January 25).

E-5074 orders Wisconsin Central Airlines to show cause why the Board should not make final the findings and conclusions set forth in an attached statement and upon the basis thereof fix, determine, and publish mail rates to be paid Wisconsin Central over its entire system (January 24).

E-5075 opinion and order amend certificate issued to Eastern Air Lines pursuant to order serial No. 4793; issue temporary certificate to Riddle Aviation Company; institute investigation to determine whether or not service operated by Eastern Air Lines between Miami, Fla., and San Juan, Puerto Rico, should be suspended in the *Additional Service to Puerto Rico* case. Approved by the President January 24 (January 23).

E-5076 exempts Alaska Airlines, effective February 1, 1951, from the provisions of paragraph 6(b) of order serial No. E-3134 (January 25).

E-5077 severs that portion of Pan American World Airways' petition which requests hearings and assigns it to Docket No. 4843; consolidates Docket No. 4843 with Dockets Nos. 2622, 2720, and 4724 into a single proceeding, Docket No. 2622, et al.; otherwise denies, in the matter of a notice of nonstop service in foreign air transportation (January 26).

E-5078 denies petition of Delta Air Lines for leave to intervene in the matter of the application of Miami Airlines for an exemption (January 26).

E-5079 denies reconsideration of order serial No. E-4524 in the matter of the application of Oswald Alaska Airways for an exemption; revokes effective February 25, 1951, temporary exemption granted by section 291.16 (January 26).

E-5080 orders suspension to April 25, 1951, and institutes investigation of certain excursion fares proposed by Pan American World Airways and Braniff Airways (January 25).

E-5081 postpones the effective date of the Board's order serial No. E-4240 and sets down for hearing application of Aero Finance Corporation for an exemption pursuant to section 291.16 and section 416(b) of the Act (January 26).

E-5082 dismisses proceeding of investigation and suspension instituted by the Board's order serial No. E-4603 in the matter of the rules, regulations and fares proposed by American Airlines, and others (January 26).

Fuel Exhausted.—Exhaustion of fuel prior to arrival at the intended destination, due to improper flight planning and operation, was given by the Board as the probable cause of an accident at Los Angeles October 1, 1949, in which one person was killed and five were injured. The plane, owned by Mercer Enterprises, was destroyed.

The plane was on a return flight from Palo Alto to Burbank. No difficulty was experienced en route, but 61 miles out of Burbank the pilot became concerned as to whether he had sufficient fuel to continue to his destination. Over Newhall, the pilot asked the Burbank tower for the shortest route to Burbank. The Board said no attempt was made to utilize the available aircraft radio equipment for orientation on Burbank.

Approximately 9 minutes after passing Newhall, the flight entered thin layers of stratus-type clouds at 4,000 feet and emerged at approximately 3,000 feet over the downtown area of Los Angeles. Realizing that he had flown past his destination, the pilot made a turn to return to Burbank. During the turn, both engines ceased operation due to fuel exhaustion and an emergency descent was started to Beverly Boulevard. The plane struck a power line and fell to the street out of control.

"The accident was the result of poor flight planning, in that no attempt was made to determine the actual fuel consumption rate or the ground speed," the Board said. "Furthermore, after passing Newhall no attempt was made to utilize the available radio equipment for the purpose of orientation on Burbank. If the radio had been properly used the flight should not have flown past its destination and a landing might have been accomplished at Burbank before the fuel was exhausted. The weather cannot be considered a contributing factor as it was substantially as forecast."

E-5083 opinion and order approve certain IATA resolutions relating to general sales agents of non-IATA carriers and for equality of commissions; disapprove IATA resolutions providing for equality of fares and rates in the IATA Agency Resolutions Proceeding (January 24).

E-5084 opinion and order terminate the stay contained in the Board's order serial No. E-5007 and make that order effective (January 29).

E-5085 authorizes Lake Central Airlines to suspend service at Kankakee, Ill., on segment 2 of route No. 88 until 60 days after the Board's final decision in the *Indiana-OH Local Service* case, or until such time as airport facilities become adequate for scheduled air carrier operations (January 29).

E-5086 authorizes All American Airways to suspend service at Bellefonte-State College, Pa., on segment 7 of route No. 97, until May 1, 1951, or until airport facilities become adequate for regularly scheduled air carrier operations (January 29).

E-5087 grants the City of Houston, Texas, and the Houston Chamber of Commerce leave to intervene in the matter of the application of Chicago and Southern Air Lines for amendment of its certificate so as to include Maracaibo, Venezuela (January 29).

E-5088 authorizes Bonanza Air Lines to suspend service at Death Valley, Calif., on route 105 until such time as airport facilities become available for scheduled air carrier operations; otherwise denies (January 29).

E-5089 denies Alaska Airlines exemption from the provisions of section 401(a) of the Act so as to permit it to engage in the carriage of mail between Bethel and Eek, Alaska, until such times as the Board certifies the carriage of mail to Eek (January 30).

E-5090 opinion and order in the *Southern Service to the West* case deny applications of six airlines for extension of routes; approve, subject to specific terms and conditions, certain agreements between Delta and American; terminate, with stated exception, the investigation instituted by the Board serial No. E-2033 (Docket 3505); deny all applications in the matter except to the extent that the action taken constitutes the grant or denial thereof (January 30).

E-5091 supplemental opinion and order in the *Florida Trunkline* case deny the applications of Delta Air Lines and the Bureau of Aeronautics of Pinellas County, Fla., for extension of Delta's route No. 24 from Savannah, Ga., to Miami, Fla., via various intermediate points (January 30).

E-5092 grants petition of All American Airways for expedited hearing on its application in Docket No. 4015; in all other respects denies petition of All American Airways and motion of Eastern Air Lines in the *Service to Asbury Park, N. J.* case (January 30).

E-5093 institutes investigation in the matter of the complaint of W. J. Dissen with respect to the lawfulness of Rule 17 filed on behalf of American Airlines (January 31).

E-5094 permits Slick Airways to inaugurate service on or after February 1, 1951, at stated points in Indiana, Ohio, Pennsylvania, D. C., and Maine on route No. 101 (January 31).

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Suspensions and Revocations

Recent initial decisions by Civil Aeronautics Board examiners suspending or revoking certificates include the following:

Revocations

Student pilot certificate of Christopher Harris Chandler, Elmira, N. Y., revoked for piloting an aircraft carrying a passenger.

Student pilot certificate of Frederick S. McIntyre, Perham, Minn., revoked for operating an unsatisfactory aircraft and for piloting an aircraft equipped with skin when his certificate had not been endorsed for said type. The pilot on two occasions crashed while attempting landings and failed to report either accident.

Private pilot certificate of Thomas Edward Travis, Hampshire, Tenn., revoked. The pilot attempted to land on a rough, short private field and crashed, causing major damage to the aircraft. The following day the pilot had the same result with another aircraft. The same planes, while in an unsatisfactory condition, were used by the pilot on flights during which passengers were carried.

Student pilot certificate of Benjamin Frank Parker, Artesia, N. M., revoked for carrying a passenger, for low flying over Lovington, N. M., and for operating an aircraft while under the influence of intoxicating liquor.

Private pilot certificate of H. A. Martin, Monmouth, Ill., revoked for operating an aircraft under instrument conditions within a control zone near Joliet, Ill., without filing a flight plan nor obtaining clearance from traffic control and for operating an aircraft under instrument conditions without having an instrument rating.

Private pilot certificate of Robert L. Stansberry, Norristown, Pa., revoked for low flying over the congested area of East Norriton Township, Pa., and for "buzzing" houses in that area.

Student pilot certificate of Leonard George Merrill, Jr., Scarborough, Me., revoked for operating an aircraft without the permission of the owner and when his certificate had not been endorsed for that type of aircraft.

Private pilot certificate of Clifton Eugene Smoot, Tifton, Ga., revoked for low flying in the vicinity of Tifton. While circling some farm buildings at a low altitude the aircraft struck some power lines and crashed.

Private pilot certificate of Ellis Walker, Battleground, Wash., revoked for low flying and performing acrobatic maneuvers within a civil airway 11 miles north of Vancouver, Wash.

Student pilot certificate of John Raymond Guthrie, Jr., North Platte, Nebr., revoked for knowingly giving a false answer to a material question on his application for a student pilot certificate.

Suspensions

Private pilot certificate of John W. Summers, Capitan, N. Mex., suspended 1 year from October 28 for performing acrobatic maneuvers at an altitude as low as 10 feet above persons and automobiles on a beach near Boca Chica, Tex.

Private pilot certificate of W. H. Jones, Brackettville, Tex., suspended 6 months from November 6 for low flying over a congested residential area of San Antonio, Tex.

Private pilot certificate of Leslie Dean Miller, Kansas City, Mo., suspended 5 months from October 25 for low flying and engaging in acrobatic maneuvers at a low altitude near Holt, Mo. During the flight, the pilot flew below tree top level, buzzed a house so close as to make its windows vibrate, stamped calves, and frightened chickens.

Private pilot certificate of Daniel E. Wescott, Westfield, Mass., suspended 6 months from September 19 for operating an aircraft in a careless and reckless manner, taking off without checking his engine, and failure to conform to the traffic pattern at the Tor-Win Airport, Winsted, Conn.

Private pilot certificate of Harold M. Dickinson, Reading, Pa., suspended 90 days from September 12 for low flying over the congested area of Alace Manor, Berks County, Pa.

Private pilot certificate of David E. Miller, Pennington, N. J., suspended 60 days from September 28 for low flying over the congested area of Pennington.

Private pilot certificate of P. E. Cole, Atlanta, Ga., suspended until January 8, 1951, for low flying over Savannah Beach, Savannah, Ga.

Private pilot certificate of Frank E. Dawson, Van Nuys, Calif., suspended 90 days from October 10 for flying an aircraft under instrument flight conditions when he did not hold a valid instrument rating and for failing to familiarize himself with available information appropriate to his intended operations before beginning said flight.

Private pilot certificate of William Slaymaker, Klamath Falls, Ore., suspended 90 days from October 10 for low flying and performing acrobatic maneuvers over the congested area of Tulelake, Calif.

Commercial pilot certificate of James A. Bath, South Bend, Ind., suspended 6 months from October 7 for operating an aircraft carrying passengers without "checking out" in that type aircraft before making the flight, and piloting an aircraft after the hours of sunset without displaying navigation lights.

Private pilot certificate of William Arvin, Jr., Louisville, Ky., suspended 6 months from October 3 for low flying and performing acrobatics within the civil airway in the vicinity of Brooks, Ky. While recovering from a spin, the left wing hit a tree and the aircraft crashed.

Student pilot certificate of Kenneth S. Hart, Madison, Wis., suspended 60 days from November 4 for starting an aircraft without having a competent person at the controls or without chocking the aircraft, thereby causing damage to an aircraft parked nearby.

Scheduled Air Carrier Operations

[Source: CAB Form 41]

Domestic: December 1950

Operator	Revenue miles	Revenue passengers (000)	Revenue passenger miles (000)	Passenger seat miles (000)	Revenue passenger load factor (percent)	Ton-miles flown		
						Express	Freight	United States mail
Trunk Lines								
American Airlines	5,148,624	302,703	156,080	216,285	72.16	1,079,098	3,507,643	1,421,465
Brannif Airways	955,314	54,979	18,923	33,066	57.23	140,202	176,116	159,357
Capital Airlines	1,872,956	121,737	38,864	71,111	54.65	228,222	495,178	196,133
Chicago & Southern Air Lines	649,001	29,751	11,095	18,585	59.70	86,204	80,162	75,177
Colonial Airlines	285,507	14,792	3,821	8,351	45.75	9,877	9,252	11,388
Continental Air Lines	526,751	19,484	7,073	14,833	47.68	21,177	53,234	26,811
Delta Air Lines	1,263,199	58,591	27,134	44,474	61.01	139,612	343,174	176,883
Eastern Air Lines	4,449,300	240,053	113,441	187,090	60.63	622,756	467,088	607,147
Inland Air Lines	252,450	7,511	2,970	6,124	48.50	9,091	13,284	20,809
Mid-Continent Airlines	670,690	29,443	8,923	16,868	52.93	33,016	55,278	39,740
National Airlines	1,034,151	39,946	26,049	43,246	60.23	41,034	256,139	51,948
Northeast Airlines	358,213	29,295	5,541	11,217	49.40	25,472	24,462	16,303
Northwest Airlines	1,325,884	46,034	32,307	63,363	50.99	301,805	532,264	338,042
Trans World Airlines	4,058,420	137,449	98,851	156,829	63.03	989,162	1,474,383	1,217,148
United Air Lines	4,383,295	189,588	116,916	168,681	69.31	1,371,148	2,202,398	1,764,165
Western Air Lines	691,923	44,081	16,451	27,548	59.72	51,869	52,377	109,248
Trunk total	27,925,678	1,365,437	684,444	1,087,671	62.93	5,149,745	9,742,432	6,231,764
Feeder Lines								
All American Airways	238,503	10,437	1,458	5,009	29.11	14,688	0	5,649
Bonanza Air Lines	78,368	1,876	460	1,604	28.68	257	905	603
Central Airlines	138,919	1,343	219	1,911	11.46	0	0	2,070
Empire Air Lines	96,043	255	553	2,017	27.42	1,527	0	3,584
Frontier Airlines (Challenger-Monarch merger eff. 6/1/50)	369,640	6,658	1,677	7,393	22.68	7,765	13,586	11,849
Helicopter Air Service	29,437	0	0	0	—	0	0	2,388
Lake Central Airlines (formerly Turner)	96,619	1,553	265	1,726	15.35	13,794	0	987
Los Angeles Airways	27,427	0	0	0	—	—	0	4,289
Mid-Continent Airlines	81,169	2,985	617	1,705	36.19	3,480	7,318	1,955
Piedmont Aviation	97,549	413	55	390	14.10	0	0	1,153
Pioneer Air Lines	303,008	11,693	2,863	6,363	44.99	10,599	11,672	5,681
Robinson Airlines	295,765	11,064	2,972	7,098	41.87	5,460	10,958	11,404
Southern Airways	101,240	4,652	726	2,009	36.14	6,639	3,893	3,074
Southwest Airways	187,389	4,892	865	3,928	22.02	6,422	0	8,437
Trans-World Airways	184,156	9,398	1,816	3,867	46.96	5,715	8,555	4,935
West Coast Airlines	271,678	6,594	1,596	5,705	27.98	4,872	5,877	6,042
Wiggins, E. W., Airways	87,028	3,870	547	1,828	29.92	1,196	2,016	784
Wisconsin-Central Airlines	52,511	302	27	210	12.86	0	0	165
Grand Total	31,143,435	1,480,698	705,751	1,148,805	61.43	5,247,575	9,864,170	6,319,739
Territorial Lines	2,907,324	81,621	17,289	54,128	31.94	86,607	64,780	79,724
Caribbean-Atlantic Airlines	47,149	6,194	503	1,227	40.99	0	2,394	1,378
Hawaiian Airlines	263,284	27,446	3,515	5,779	60.82	11,223	54,564	6,873
Territorial total	310,433	33,640	4,018	7,006	57.35	11,223	56,958	8,251
Grand Total	31,143,435	1,480,698	705,751	1,148,805	61.43	5,247,575	9,864,170	6,319,739

Airline transport pilot certificate of James Harold Mangham, Smithfield, Tex., suspended 20 days from September 20. As captain-in-command of a scheduled passenger flight operating on a VFR clearance between Douglas and Tucson, Ariz., he flew into IFR conditions without obtaining an amended clearance, failed to follow IFR minimums when flying under IFR conditions, and failed to use the printed checklist carried in the cockpit when pre-starting the engines and during the run-ups prior to take-off.

Private pilot certificate of Howard Frederick Carber, Baton Rouge, La., suspended 3 months from November 22 for low flying and performing acrobatic maneuvers over the congested area of Baton Rouge, La., performing acrobatic maneuvers while carrying a passenger who was not equipped with a parachute, and failing to have his medical certificate in his personal possession.

Private pilot certificate of Ralph Dillard, Edinburg, Tex., suspended 6 months from November 6 for piloting an aircraft at an altitude of 10 to 12 feet above the ground and as close as 10 to 12 feet from persons on the ground.

Private pilot certificate of Peter N. Pick, III, Houston, Tex., suspended 3 months from November 24 for failure to conform with the traffic pattern at the Pearland Airport, Pearland, Tex., and for performing acrobatic maneuvers at a low altitude near the airport. While performing acrobatics the aircraft stalled coming out of a steep turn and crashed to the ground.

Private pilot certificate of Chester J. Marcin, Cleveland, Ohio, suspended 4 months from November 22 for low flying over the congested area of Cleveland and for operating an aircraft in a careless and reckless manner by intense diving to a low altitude.

Private pilot certificate of Herbert Uno Lundberg, Detroit, Mich., suspended 30 days from November 22 for operating an aircraft that had not been given an annual inspection.

Private pilot certificate of Jerome Lucey, Indianapolis, Ind., suspended 3 months from November 15 for low flying over a congested area of Indianapolis.

Private pilot certificate of Jerome Henry Kavaney, Appleton, Wis., suspended 3 months from November 18 for operating an aircraft in a reckless and careless manner by flying so low in the vicinity of Fremont, Wis., as to strike high tension wires, damaging the aircraft.

Private pilot certificate of Orville Thomas Moore, Russell, Ky., suspended 4 months from November 21 for performing

acrobatic maneuvers at a low altitude within a civil airway in the vicinity of Russell.

Private pilot certificate of Arnold M. Iverson, Willmar, Minn., suspended 90 days from November 14 for landing an aircraft at the Hector Airport, Hector, Minn., when an air show was in progress and the field marked closed.

Private pilot certificate of William M. Harms, Sherman Oaks, Calif., suspended 6 months from November 10 for operating an aircraft in the vicinity of Chicago Midway Airport where air traffic control was in operation without maintaining contact with them and for landing on the airport without receiving clearance.

Student pilot certificate of Charles C. Ford, St. Clairsville, Ohio, suspended 4 months from November 8 for "buzzing" the business section of Barnesville, Ohio.

Private pilot certificate of Bert Edward Butties, Minneapolis, Minn., suspended 6 months from November 9 for low flying over an assembly of persons on the beach at Lake Calhoun, Minneapolis.

Student pilot certificate of Helmer Lee Kinden, Sanish, N. D., suspended 30 days from November 11 for operating an aircraft that did not have an identification number on the tail and for piloting an aircraft carrying a passenger.

Private pilot certificate of George B. Collins, Bronx, N. Y., suspended 6 months from November 7 for operating an aircraft under instrument conditions when he did not have an instrument rating, piloting an aircraft at an altitude of less than 500 feet above the ground, and failing to familiarize himself with available information pertinent to his intended flight. The pilot took off from Portsmith, N. H., with a passenger, enroute to Montpelier, Vt. In the vicinity of Barre, Vt., he encountered instrument weather conditions and crashed into a mountain.

Private pilot certificate of John J. Tambiano, Plainville, Pa., suspended 90 days from November 13 for careless operation of an aircraft in that he failed to familiarize himself with the fuel system of the aircraft before his flight. During take-off the fuel selector was turned to an empty tank and the aircraft crashed.

Student pilot certificate of Kenneth Parsons Joiner, Titusville, N. J., suspended 90 days from November 25 for piloting an aircraft in the vicinity of Washington Crossing, N. J., below the prescribed minimum altitudes and failing to have a valid medical certificate.

Scheduled Air Carrier Operations

(Continued on page 32)

International and Overseas: January—December 1949

Operator	Revenue miles January—December		Revenue passengers January—December		Revenue passenger miles (000) January—December		Passenger seat miles (000) January—December		Revenue passenger load factor (percent) January—December	
	1950	1949	1950	1949	1950	1949	1950	1949	1950	1949
American Airlines	2,279,427	2,225,134	89,869	82,121	68,361	64,660	112,664	105,501	60.68	61.29
American Overseas Airlines (ceased opr. 9/25/50)	4,808,058	7,598,905	105,823	95,303	160,108	180,861	242,038	299,944	66.15	60.30
Braniff Airways	2,636,018	1,675,081	20,857	13,280	43,939	29,020	114,095	77,388	37.50	32.70
Chicago & Southern Air Lines	1,883,531	1,816,862	22,631	23,481	27,089	27,327	75,213	83,559	36.02	33.78
Colonial Airlines	603,396	669,471	25,130	12,697	18,732	9,943	30,082	29,484	62.27	44.36
Eastern Air Lines	750,257	752,960	16,698	14,963	17,365	15,988	39,143	37,545	42.58	51.13
National Airlines	781,148	659,569	80,538	58,607	21,779	16,663	43,371	32,587	50.22	55.58
Northwest Airlines	6,178,835	5,826,033	54,506	37,987	102,254	75,365	183,985	136,744	56.33	55.11
Pan American World Airways:										
Atlantic Division	12,995,265	15,656,957	192,534	129,217	361,417	316,021	506,187	524,465	71.40	60.26
Latin American Division	27,300,311	29,191,357	696,883	706,225	605,667	585,169	985,318	1,060,830	61.47	55.16
Alaska Operations	2,415,563	2,464,857	43,191	37,805	41,373	37,084	74,406	71,900	53.60	51.58
Pacific Operations	9,715,447	11,085,134	73,640	84,978	225,906	242,126	405,921	402,209	55.65	60.20
Pan American-Grace Airways	5,175,708	5,753,948	100,017	92,960	103,816	105,404	215,736	200,442	48.12	52.59
Trans World Airlines (5/17/50)	19,814,256	13,636,348	124,600	100,692	338,317	283,015	555,663	457,842	60.89	61.81
United Air Lines	2,191,512	2,410,664	28,974	27,026	70,029	64,427	112,879	102,641	62.04	62.77
Uruba, Medellin & Central Airways	101,544	102,604	2,649	2,785	871	925	1,733	1,642	50.26	56.33
Total	98,820,209	104,525,884	1,676,540	1,520,067	2,206,423	2,053,998	3,698,444	3,624,673	59.66	56.87
Index (1949 = 100)	89.76	100.00	110.29	100.00	107.42	100.00	102.04	100.00	105.28	100.00

Operator	Ton-miles flown							
	Express January—December		Freight January—December		United States mail January—December		Parcel post January—December	
1950	1949	1950	1949	1950	1949	1950	1949	1950
American Airlines	13,060	2,551	1,368,694	1,179,885	126,664	129,572	0	0
American Overseas Airlines (ceased opr. 9/25/50)	2,058,699	3,556,660	0	0	1,076,291	1,190,730	285,557	361,270
Braniff Airways	0	0	948,090	252,405	69,444	21,424	0	0
Chicago & Southern Air Lines	0	0	667,735	322,253	29,553	15,731	2,329	1,635
Colonial Airlines	0	0	54,793	51,086	5,228	8,702	1,271	1,500
Eastern Air Lines	0	0	298,088	413,339	87,362	64,102	5,751	6,258
National Airlines	129,831	278,076	139,873	0	13,682	13,442	0	0
Northwest Airlines	180,608	105,446	6,150,044	4,495,446	2,099,980	1,975,620	0	0
Pan American World Airways:								
Atlantic Division	8,618,755	8,469,610	0	0	3,050,623	2,401,093	713,952	461,652
Latin American Division	21,759,051	18,892,086	0	0	2,893,128	2,733,081	0	34,619
Alaska Operations	4,151,967	4,070,953	0	0	431,227	450,604	0	0
Pacific Operations	5,836,812	5,904,981	0	0	5,908,664	5,794,608	0	0
Pan American-Grace Airways	1,718,762	1,823,043	0	0	341,938	316,815	39,828	23,590
Trans World Airlines (5/17/50)	0	5,996,069	6,038,294	0	2,859,268	2,527,314	480,698	473,053
United Air Lines	0	306,689	384,198	0	665,652	765,850	0	0
Uruba, Medellin & Central Airways	33,976	37,966	0	0	0	0	0	0
Total	44,501,521	49,444,130	16,049,809	6,714,414	19,658,704	18,408,688	1,529,386	1,363,577
Index (1949 = 100)	90.00	100.00	239.04	100.00	106.79	100.00	112.16	100.00

International and Overseas: December 1950

Operator	Revenue miles	Revenue passengers	Revenue passenger miles (000)	Passenger seat miles (000)	Revenue passenger load factor (percent)	Ton-miles flown			
						Express	Freight	United States mail	Parcel post
American Airlines	197,094	7,989	5,930	9,991	59.35	1,576	127,974	14,428	0
Braniff Airways	275,476	2,268	4,409	12,583	35.04	0	104,213	18,080	0
Chicago & Southern Air Lines	141,341	2,396	2,311	5,979	38.65	0	63,972	3,675	321
Colonial Airlines	50,078	1,854	1,467	2,604	56.34	0	2,692	1,047	298
Eastern Air Lines	64,480	1,519	1,580	3,842	41.12	0	16,826	16,576	502
National Airlines	83,899	6,925	1,894	4,681	40.46	3,975	20,212	1,526	0
Northwest Airlines	517,847	5,227	9,426	17,504	53.85	23,448	603,353	285,358	0
Pan American World Airways:									
Atlantic Division	1,254,756	23,097	32,278	45,668	70.68	1,081,661	0	505,246	112,434
Latin American Division	2,319,146	58,080	52,334	83,161	62.93	2,023,228	0	386,660	0
Alaska Operations	193,858	3,047	3,329	5,418	61.44	353,642	0	74,808	0
Pacific Operations	782,897	5,826	20,123	34,212	58.82	562,342	0	665,214	0
Pan American-Grace Airways	484,073	9,136	9,429	17,588	53.61	180,838	0	37,859	8,247
Trans World Airlines	1,030,267	8,796	24,292	45,396	53.51	0	592,723	414,619	64,499
United Air Lines	262,595	3,041	7,541	13,000	58.01	0	46,980	119,728	0
Uruba, Medellin & Central Airways	8,528	262	86	144	59.72	3,407	0	0	0
Total	7,666,335	139,463	176,429	301,771	58.46	4,234,117	1,578,945	2,494,819	186,301

Domestic Passenger Miles Flown (Total Revenue and Nonrevenue, in Thousands)

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Trunk	488,983	488,409	574,493	645,184	691,949	789,740	757,007	786,524	750,460	769,609	649,464	707,506	8,099,328
Feeder	10,266	10,425	12,551	15,517	17,191	19,322	21,446	19,754	20,439	17,875	18,674	202,943	
Territorial	3,547	3,497	3,841	4,351	3,610	4,966	4,736	5,546	3,892	3,472	3,197	4,070	48,725
Total	502,796	502,331	590,885	665,052	712,750	814,028	781,226	813,516	774,106	793,520	670,536	730,250	8,350,996

Planes Offer Vital Service

(Continued from page 1)

the safe, day-to-day operations of the airlines, CAA has authorized issuance for this purpose of 'D.O.' ratings totaling approximately 200 million dollars.

"Number three was to operate CAA's Federal airways system of navigation aids and traffic control with the best electronic devices available. We have obtained authorization for 37 million dollars in ratings to cover such vital items as surveillance radar, which will help us move and track air traffic in and out of large terminals in all weather.

"Number four was to assure materials for any airport construction or improvement required for national defense. We are handling these projects on an individual basis, and the National Production Authority has assured us of all necessary assistance to overcome any difficulties that may be encountered.

"Number five is the production and maintenance of essential small aircraft. This is the only problem we have not yet solved on a permanent basis. As a 90-day interim measure, we have endorsement of interested government agencies for continued manufacture at the rate of 2,500 planes a year, compared with 3,500 in 1950. We also have their recommendation that for the 90-day period, CAA be allowed to give any priority assistance necessary to maintain all non-carrier aircraft in flying status."

The Administrator brought out that a long-range program is being worked out, by which priorities for the varied and widely scattered small aircraft owners can be issued from field offices with a minimum of red tape.

"Thus, the private flyer, or, to describe him more accurately, the utility flyer," Mr. Nyrop said, "will be able to continue with the rest of civil aviation in making a real contribution to defense."

CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board.

Administration

Crop Dusting, Other Industrial Flying up Sharply, CAA Report Shows—(Feb. 16, 1951).

Tools Change but 'Farmers' Still Arise Before Sunup—(February 18, 1951).

Airplane can Help Produce Crops Needed for Defense, CAA Administrator Says—(February 19, 1951).

Canada—U.S. Flights Simplified by Agreement—(February 26, 1951).

Address by Donald W. Nyrop, Administrator of Civil Aeronautics, before the National Aviation Education Council, Atlantic City, N. J., (February 15, 1951). "The Role of Aviation Education in International and Domestic Affairs."

Address by Donald W. Nyrop, Administrator of Civil Aeronautics, at Third National Agricultural Conference, Memphis, Tenn., (February 19, 1951). "The Airplane's Defense Job in Agriculture."

Address by Donald W. Nyrop, Administrator of Civil Aeronautics, at Rollins College, Winter Park, Florida, (February 25, 1951). "Civil Aviation For Defense."

Board

CAB Authorizes Additional Air Service to Puerto Rico—(CAB 51-7) (January 26).

CAB Sets Hearing for Northwest Airlines, Inc., Accident at Reardon, Washington—(CAB 51-8) (January 31).

CAB Proposes 5-Year Extension of Empire Air Lines Routes—(CAB 51-9) (February 5).

Scheduled Air Carrier Operations

(Continued on page 33)

Domestic: January—December 1950, 1949

Operator	Revenue miles January—December		Revenue passengers January—December		Revenue passenger-miles (000) January—December		Passenger seat-miles (000) January—December	
	1950	1949	1950	1949	1950	1949	1950	1949
Trunk Lines								
American Airlines	58,108,773	55,904,344	3,477,374	3,214,897	1,739,523	1,504,801	2,497,762	2,323,909
Braniff Airways	11,210,556	11,423,813	638,934	591,476	215,406	196,892	391,266	375,204
Capital Airlines	20,820,572	20,296,033	3,370,489	1,191,000	410,582	351,284	763,494	695,135
Chicago & Southern Air Lines	7,421,373	7,483,722	330,716	312,954	117,600	106,936	209,237	201,065
Colonial Airlines	3,445,131	4,034,063	191,659	192,240	49,341	50,283	99,892	84,836
Continental Air Lines	5,842,377	5,683,280	206,023	179,695	72,294	65,195	165,200	158,273
Delta Air Lines	14,307,971	12,982,594	637,386	525,839	280,094	209,003	479,669	382,583
Eastern Air Lines	52,073,177	53,009,308	2,634,485	2,207,522	1,226,819	1,005,166	1,988,217	1,800,356
Inland Air Lines	3,073,251	2,747,636	91,301	84,870	35,883	31,328	69,091	54,249
Mid-Continent Airlines	8,256,936	8,478,963	346,435	337,517	102,516	99,302	193,571	178,059
National Airlines	11,333,508	10,133,898	390,748	297,513	242,775	168,804	452,379	376,053
Northeast Airlines	4,211,657	4,013,572	372,497	324,963	70,468	61,957	135,975	128,127
Northwest Airlines	19,659,181	19,188,428	799,222	728,911	511,194	419,750	901,620	742,037
Trans World Airlines	45,810,069	49,112,945	1,569,372	1,386,607	1,106,196	929,043	1,685,043	1,531,597
United Air Lines	53,241,983	52,410,766	2,462,466	2,173,064	1,411,737	1,266,963	2,038,475	1,866,857
Western Air Lines	8,237,826	6,337,653	459,065	271,979	173,580	104,019	314,744	219,363
Trunk total	327,054,341	323,241,018	15,978,172	14,021,047	7,766,008	6,570,726	12,385,635	11,117,703
Index (1949 = 100)	101.18	100.00	113.96	100.00	118.19	100.00	111.40	100.00
Feeder Lines								
All American Airways	3,083,844	2,575,585	150,195	73,431	21,213	9,852	64,757	45,065
Bonanza Air Lines	907,256	30,658	18,909	352	4,595	82	18,263	604
Central Airlines	1,801,160	352,805	10,822	823	1,326	100	7,579	1,053
Empire Air Lines	1,163,123	1,061,798	42,018	33,762	8,242	7,282	24,424	22,298
Florida Airways (ceased opr. 3/28/49)	—	193,120	—	3,026	—	409	—	1,542
Frontier Airlines (Challenger- Monarch merger eff. 6/1/50)	3,760,830	3,264,399	65,626	60,370	17,479	15,915	73,084	62,018
Helicopter Air Service	331,415	72,415	0	0	0	0	0	0
Lake Central Airlines (for- merly Turner Airlines)	901,799	35,530	12,757	559	2,041	95	12,748	746
Los Angeles Airways	336,571	339,425	0	0	0	0	0	0
Mid-Continent Airlines	222,471	—	8,645	—	1,845	—	4,672	—
Mid-West Airlines	1,519,664	160,356	6,940	529	1,002	72	6,076	642
Piedmont Aviation	3,663,002	3,051,202	123,762	86,154	26,089	18,516	76,923	64,076
Pioneer Air Lines	3,708,731	3,821,632	128,171	104,112	34,416	28,294	89,065	92,017
Robinson Airlines	1,186,868	910,784	55,463	41,815	8,841	6,181	23,442	17,847
Southern Airways	1,831,961	819,369	38,053	10,665	6,568	1,753	38,490	17,813
Southwest Airways	2,311,734	2,399,955	118,860	114,573	22,236	20,947	48,547	51,012
Trans-Texas Airways	3,045,649	2,909,567	64,754	49,764	14,756	11,581	63,865	61,122
West Coast Airlines	1,219,646	1,243,595	66,401	65,335	9,454	8,630	25,613	26,116
Wiggins, E. W., Airways	460,554	69,419	3,186	420	288	39	1,836	278
Wisconsin-Central Airlines	2,050,946	1,633,936	48,797	32,627	7,764	4,950	16,928	13,641
Feeder total	33,507,224	24,945,550	963,359	677,817	188,155	134,698	596,252	477,890
Index (1949 = 100)	134.32	100.00	142.13	100.00	139.69	100.00	124.77	100.00
Territorial Lines								
Caribbean-Atlantic Airlines	551,977	593,477	72,732	78,572	5,852	5,881	14,014	14,346
Hawaiian Airlines	2,961,349	2,859,953	326,135	303,268	42,183	41,273	65,275	62,881
Territorial total	3,513,326	3,453,430	398,867	381,840	48,035	47,154	79,289	77,227
Index (1949 = 100)	101.73	100.00	104.46	100.00	101.87	100.00	102.67	100.00
Grand total	364,074,891	351,639,998	17,340,398	15,080,704	8,002,198	6,752,578	13,061,176	11,672,820
Index (1949 = 100)	103.54	100.00	114.98	100.00	118.51	100.00	111.89	100.00

CAB Unit Considering Amendment to Part 42

The Bureau of Safety Regulation of the Board has under consideration a proposed amendment to Part 42 of the Civil Air Regulations which raises the standards for radio equipment for large aircraft.

The notice of the proposed regulation as circulated to the aviation industry follows:

"Pursuant to authority delegated by the Civil Aeronautics Board to the Bureau of Safety Regulation, notice is hereby given that the Bureau will propose to the Board an amendment of Part 42 of the Civil Air Regulations in substance as hereinafter set forth.

"Interested persons may participate in the making of the proposed rules by submitting such written data, views, or arguments as they may desire. Communications should be submitted, in duplicate, to the Civil Aeronautics Board, attention Bureau of Safety Regulation, Washington, D. C. All communications received by March 31, 1951 will be considered by the Board before taking further action on the proposed

(Continued on next page)

Scheduled Air Carrier Operations

(Continued from page 32)

Domestic: January–December 1950, 1949

Operator	Revenue passenger load factor (percent) January–December	Ton-miles flown						1951	1950		
		Express January–December		Freight January–November		United States mail January–November					
		1950	1949	1950	1949	1950	1949				
Trunk Lines											
American Airlines	69.64	64.75	7,281,535	5,578,531	35,137,077	31,801,537	10,098,259	8,885,757			
Braniff Airways	55.05	52.48	1,064,368	832,518	1,956,236	1,173,554	1,308,480	1,072,624			
Citizen Airlines	53.78	50.53	2,283,458	1,747,605	8,137,082	6,981,117	1,532,246	1,066,534			
Chicago & Southern Air Lines	56.20	53.18	730,012	533,199	592,742	533,951	608,040	520,152			
Colonial Air Lines	49.39	59.27	84,847	69,354	106,390	107,161	94,717	100,194			
Continental Air Lines	43.76	41.19	114,833	97,881	498,356	371,964	205,955	208,231			
Delta Air Lines	58.39	54.63	1,076,944	717,372	3,149,207	1,885,564	1,251,003	900,582			
Eastern Air Lines	61.70	55.83	4,399,971	3,560,551	9,991,929	8,540,951	5,911,147	4,885,959			
Midwest Air Lines	51.94	57.73	71,976	64,736	163,574	126,815	134,683	117,232			
Mid-Continent Airlines	52.96	55.77	246,372	217,393	519,725	453,288	340,270	313,465			
National Airlines	53.67	44.89	522,236	545,094	2,923,058	1,303,408	636,988	541,060			
Northeast Airlines	51.82	48.36	187,442	111,122	294,415	229,966	121,244	98,200			
Northwest Airlines	56.70	56.57	2,139,416	1,657,866	6,934,943	4,643,245	2,578,253	2,541,263			
Trans World Airlines	65.65	60.66	6,421,636	4,878,633	13,684,401	12,035,978	9,120,395	8,786,206			
United Air Lines	69.25	67.87	9,213,794	6,400,120	27,774,546	28,585,250	12,499,582	10,386,738			
Western Air Lines	55.15	47.42	508,343	316,588	691,450	416,442	843,491	449,663			
Trunk total	62.70	59.10	36,588,183	27,329,361	112,860,631	94,189,591	46,324,753	40,874,188			
Index (1949 = 100)	106.09	100.00	133.70	100.00	119.82	100.00	113.33	100.00			
Feeder Lines											
All American Airways	32.76	21.86	118,874	65,488	0	0	43,189	41,454			
Bonanza Air Lines	25.16	19.58	2,053	44	9,495	42	5,362	255			
Central Airlines	17.50	9.50	0	0	0	0	16,344	3,972			
Embrair Air Lines	33.75	32.66	18,364	14,446	0	0	21,450	20,492			
Florida Airways (ceased opr. 3/28/49)	—	26.52	—	660	—	0	—	1,812			
Frontier Airlines (Challenger merger eff. 6/1/50)	23.92	25.66	57,062	53,659	162,507	163,632	73,965	63,034			
Heli-Opter Air Service	—	—	0	0	0	0	20,705	8,425			
Lake Central Airlines (formerly Turner Airlines)	16.01	12.73	45,797	446	0	0	5,834	240			
Los Angeles Airways	—	—	0	0	0	0	42,583	42,313			
Mid-Continent Airlines	39.49	—	8,452	0	14,869	0	4,692	—			
Mid-West Airlines	16.49	11.21	0	1	0	0	17,656	2,273			
Piedmont Aviation	33.92	28.90	84,454	41,129	134,346	62,414	51,835	31,229			
Pioneer Air Lines	38.64	30.75	48,424	32,766	135,395	77,843	99,334	85,148			
Robinson Airlines	37.71	34.63	44,534	5,228	36,550	16,472	24,409	18,489			
Southwest Airlines	17.09	9.84	44,546	15,765	0	0	48,771	18,495			
Southwest Airways	45.80	41.06	49,394	34,199	126,773	89,836	46,406	51,136			
Trans-Texas Airways	23.10	18.95	32,074	22,372	60,295	26,319	53,640	59,143			
West Coast Airlines	36.91	33.04	12,011	11,679	15,614	0	7,360	9,867			
Wiggins, E. W. Airways	15.69	14.03	0	0	0	0	1,719	515			
Wisconsin-Central Airlines	45.86	36.29	48,095	22,305	0	0	40,555	20,594			
Feeder total	31.56	28.19	614,134	320,187	695,844	435,558	624,809	473,886			
Index (1949 = 100)	111.95	100.00	191.80	100.00	159.76	100.00	131.85	100.00			
Territorial Lines											
Caribbean-Atlantic Airlines	41.76	40.99	0	0	26,144	31,068	10,313	8,122			
Hawaiian Airlines	64.62	65.64	118,033	124,121	489,426	571,766	54,875	62,097			
Territorial total	60.58	61.06	118,033	124,121	515,570	602,834	65,188	70,219			
Index (1949 = 100)	99.21	100.00	95.10	100.00	85.52	100.00	92.84	100.00			
Grand total	61.27	57.85	37,270,350	27,773,669	114,072,045	95,227,983	47,014,750	41,418,293			
Index (1949 = 100)	105.91	100.00	134.19	100.00	119.79	100.00	113.51	100.00			

Amendment to Part 42

(Continued from page 32)

rules. Copies of such communications will be available after April 4, 1951, for examination by interested persons at the Docket Section of the Board, Room 5412, Commerce Building, Washington, D. C.

Part 42 currently makes specific provision for the character of radio equipment which shall be carried by large aircraft under various operating conditions, but does not now specify its quality. Experience in the past several months has indicated that a higher level of safety is necessary and could be obtained if quality requirements were established comparable to those established for scheduled carriers. It is, therefore, proposed to amend Part 42 to prescribe approved type equipment in order to authorize the Civil Aeronautics Administration to require type-certified radio equipment for both communications and navigational purposes on all large aircraft.

It is expected that, if adopted, an effective date of December 31, 1953, will be allowed for conversion to type-certified equipment. This date coincides

with that for compliance with the T-Category requirements for operation of large passenger-carrying airplanes under Part 42.

Experience indicates that some noncertified radio equipment currently used in large irregular aircraft may be shown to comply with Part 16 of the Civil Air Regulations governing the type certification of radio equipment. Air carriers using such noncertified radio equipment should make application to CAA for approval.

It is therefore proposed to amend Part 42 of the Civil Air Regulations as follows:

1. By inserting the words 'approved type' before the words 'radio equipment' in § 42.23 (a).
2. By inserting the words 'approved type' before the words 'marker beacon receiver' and 'radio equipment' in the first sentence of § 42.23 (b) and before the words 'independent means' in the second sentence of § 42.23 (b).

This amendment is proposed under the authority of Title VI of the Civil Aeronautics Act of 1938, as amended. The proposed amendment may be changed in view of comments received in response to this notice of proposed rule making.

Civil Aviation Highlights

	1951	1950
Airports and airfields recorded with CAA, February 1	(?)	6,486
By type: Commercial	(?)	2,584
Municipal	(?)	2,203
CAA Intermediate	(?)	139
Military	(?)	349
All others	(?)	1,211
a. Private use	(?)	1,076
b. Miscellaneous government	(?)	135
Civil airports and airfields by class:	Total	
Class I and under	(?)	6,187
Class II	(?)	4,057
Class III	(?)	994
Class IV	(?)	492
Class V	(?)	371
Class VI and over	(?)	144
Total U. S. civil aircraft, February 1	92,472	92,572
Scheduled air carrier aircraft, February 1	(?)	1,155
	1950	1949
Civil aircraft production, December		
Total	305	116
1- and 2-place models	93	34
3-, 4-, and 5-place models	198	72
Over 5-place models	14	10
Certificates approved, December		
Student pilots	2,295	3,180
Private pilots	1,376	1,928
Commercial pilots	387	410
Airline transport pilots	64	103
Mechanics (original certificates)	406	521
Ground instructors (original certificates)	83	82
Flight instructor ratings	88	142
Instrument ratings	86	92
Control tower operators	53	100
Traffic control activity, December		
Aircraft operations, CAA airport towers	1,130,231	1,069,300
Firings, CAA airway centers	1,127,752	919,784
Instrument approaches, CAA approach control towers	33,888	29,997
AIRPORT OPERATIONS		
Washington National, January		
Scheduled air carrier:		
Passengers departing	80,044	43,344
Passengers arriving	75,951	44,653
Aircraft arrivals and departures	10,347	8,325
Other aircraft arrivals and departures	8,412	2,171
San Francisco Municipal, December		
Scheduled air carrier:		
Passengers departing	48,746	37,377
Passengers arriving	47,588	36,051
Aircraft arrivals and departures	6,899	6,442
Other aircraft arrivals and departures	2,797	2,597
Oakland Municipal, December		
Scheduled air carrier:		
Passengers departing	9,272	3,265
Passengers arriving	8,144	2,852
Aircraft arrivals and departures	4,913	4,531
Other aircraft arrivals and departures	6,382	12,087
Miami International, December		
Scheduled air carrier:		
Passengers departing	57,259	45,161
Passengers arriving	65,922	52,207
Aircraft arrivals and departures	9,545	8,679
Other aircraft arrivals and departures	8,580	8,198
Los Angeles International, December		
Scheduled air carrier:		
Passengers departing	(?)	37,009
Passengers arriving	(?)	40,740
Aircraft arrivals and departures	8,571	7,804
Other aircraft arrivals and departures	6,520	4,870

¹ Airport type definitions: Commercial—Public use and public services, privately owned and operated. Municipal—Public use and public services, municipally owned and/or operated. CAA Intermediate—Public emergency use only, no services, CAA operated. Military—Public restricted, military operated. All others—(a) Public emergency use only, no public services, privately owned for personal use; (b) Public emergency use only, no public services, Government-owned Forest Service, etc.

² Not available. ³ January 1951. ⁴ January 1950.

Inspection Guide for Aircraft Owners

"Personal Aircraft Inspection Manual", a CAA publication dealing with the fundamentals of inspection, provides a general maintenance guide for the owners of personal type aircraft. This well illustrated manual is available from the Government Printing Office for 55 cents.

Regulations of The Administrator

Through March 1, 1951

Note: Regulations of the Administrator marked with an asterisk (*) on the list given below may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at the prices indicated. Remit check or money order, made payable to the Superintendent of Documents, directly to the Government Printing Office. Copies of amendments may be obtained free of charge from the Office of Aviation Information, CAA, Washington 25, D. C., or may be found in the Federal Register for the dates indicated in parentheses. Copies of the Federal Register are obtainable from the Superintendent of Documents.

Procedures

- *Part 405—General Procedures. (5¢.)
- *Part 406—Certification Procedures. (10¢.)
- *Part 407—Recordation Procedures. (5¢.)
- *Part 408—Enforcement Procedures. (5¢.)

Rules

Airmen

- *Part 450—Inter-American Aviation Training Grants. (5¢.)

Aircraft

- *Part 501—Aircraft Registration Certificates. (5¢.)
- *Part 502—Dealers' Aircraft Registration Certificates. (5¢.)
- *Part 503—Recordation of Aircraft Ownership. (5¢.)
- *Part 504—Recordation of Encumbrances Against Specifically Identified Aircraft Engines. (5¢.)
- *Part 505—Recordation of Encumbrances Against Aircraft Engines, Propellers, Appliances, or Spare Parts. (5¢.)
- Part 514—Technical Standard Orders — C Series — Aircraft Components. (January 25.)

Airports

- *Part 550—Federal Aid to Public Agencies for Development of Public Airports. (10¢.)
(Amendments 1-14 available from CAA.)
- *Part 555—Acquisition of Government-owned Lands for Public Airport Purposes. (5¢.)
- *Part 560—Reimbursement for Damage to Public Airports by Federal Agencies. (10¢.)
(Amendment 1 available from CAA.)
- *Part 570—Rules of Washington National Airport. (5¢.)
(Amendment 1 available from CAA.)
- *Part 575—Federal Civil Airports on Canton and Wake Islands. (5¢.)

Air Navigation

- *Part 600—Designation of Civil Airways (including amendments 1 through 18). (15¢.)
(Amendments 19-40 available from CAA.) Amendment 41 (February 6, 1951), 42 (Feb. 22, 1951).
- *Part 601—Designation of Control Areas, Control Zones and Reporting Points (including amendments 1 through 22). (15¢.)
(Amendments 23-43 available from CAA.) Amendment 44 (Feb. 6, 1951), 45 (Feb. 22, 1951).
- *Part 612—Aeronautical Fixed Communications. (5¢.)
- *Part 620—Security Control of Air Traffic. (5¢.)
Amendment 1 (February 15, 1951).
- *Part 625—Notice of Construction or Alteration. (5¢.)

Miscellaneous

Part 635—Reproduction and Dissemination of Current Examination Materials. (Available without charge from CAA.)

Aviation Safety Releases

(Issued between January 15, 1951 and February 15, 1951, and obtainable from the CAA Office of Aviation Information, Department of Commerce, Washington 25, D. C.)

No.	Date	Subject
340	2/15/51	Periodic Activity Report, Mechanics, Dispatchers, and Ground Instructors, and Control-tower Operators.

Booklet Provides Airport Design Data

"Airport Design," a publication providing basic information on all phases of airport construction, is on sale for 30 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Different aspects of airport planning are illustrated by various charts and drawings.

Air Regulations . . . March 1, 1951

TITLE	No.	Price	Date	Number of Amendments	Applicable Special Regulations
AIRCRAFT					
Certification, Identification, and Marking of Aircraft and Related Products.	1	\$0.05	1/15/51		
Airplane Airworthiness; Normal, Utility, Acrobatic, and Restricted Purpose Categories.	13	.15	11/1/49	4	SR-358,360
Airplane Airworthiness.	4a	.20	4/7/50		SR-358,360
Airplane Airworthiness; Transport Categories.	4b	.25	7/20/50	3	SR-358,360
Rotocraft Airworthiness.	6	.10	1/15/51		SR-358,360
Aircraft Airworthiness; Restricted Category.	8	.05	10/11/50		
Aircraft Airworthiness; Limited Category.	9	.05	11/1/49	1	
Aircraft Engine Airworthiness.	13	.05	8/1/49	2	SR-358
Aircraft Propeller Airworthiness.	14	.05	11/1/49	2	SR-358
Aircraft Equipment Airworthiness.	15	.05	11/1/49	2	SR-358,360
Aircraft Radio Equipment Airworthiness.	16	.05	2/13/41		
Maintenance, Repair, and Alteration of Certificated Aircraft and of Aircraft Engines, Propellers, and Instruments.	18	.05	8/15/49		30,31
AIRMEN					
Pilot Certificates.	20	.05	8/1/49	5	
Airline Transport Pilot Rating.	21	.05	8/15/49	5	
Lighter-than-air Pilot Certificates.	22	.05	11/1/49	3	
Mechanic Certificates.	24	.05	9/1/49		
Parachute Rigger Certificates.	25	.05	9/5/50		
Air-traffic Control-tower Operator Certificates.	26	.05	11/1/49	2	
Aircraft Dispatcher Certificates.	27	.05	11/1/49	2	
Physical Standards for Airmen.	29	.05	10/1/49		
Flight Radio Operator Certificates.	33	.05	2/15/50	3	
Flight Navigator Certificates.	34	.05	11/1/49	1	SR-359
Flight Engineer Certificates.	35	.05	11/1/49	1	
OPERATION RULES					
Air Carrier Operating Certification.	40	.05	9/1/49		SR-346, 349, 351, 353, 356
Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States.	41	.05	11/15/49	3	SR-349, 356, 360
Irregular Air Carrier and Off-Route Rules.	42	.10	6/1/49	6	SR-337, 349, 350, 360
General Operation Rules.	43	.05	8/1/49	5	SR-360
Foreign Air Carrier Regulations.	44	.05	9/1/49		
Commercial Operator Certification and Operation Rules.	45	.05	11/15/49	1	SR-337, 349, 356
Operation of Moored Balloons.	48	.05	9/1/49		
Transportation of Explosives and Other Dangerous Articles.	49	.10	7/20/49		
AIR AGENCIES					
Airman Agency Certificates.	50	.05	10/1/49	2	SR-354,355
Ground Instructor Rating.	51	.05	10/10/49	1	
Repair Station Rating.	52	.05	10/15/49		
Mechanic School Rating.	53	.05	10/15/49		
Parachute Loft Certificates and Ratings.	54	.05	10/15/49	1	
AIR NAVIGATION					
Air Traffic Rules.	60	.10	8/1/49		
Scheduled Air Carrier Rules.	61	.10	9/1/49	3	SR-346, 349, 350, 356, 360
Notice and Reports of Aircraft Accidents and Missing Aircraft.	62	.05	5/1/49		

¹ Certain aircraft may comply with the provisions of this Part or Part 4a.

NOTE: Civil Air Regulations are on sale at the prices indicated by the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Amendments and special regulations may be obtained from the publications Section, Civil Aeronautics Board, Washington 25, D. C.

CAA Manuals and Supplements . . . March 1, 1951

TITLE	No.	Price	Date	No. of Supplements	Amending Release
Production Certificates.	02	\$0.10	8/1/46		
Airplane Airworthiness; Normal, Utility, Acrobatic, and Restricted Purpose Categories.	3	Free		5	Nos. 193, 202
Airplane Airworthiness.	04	.75	7/1/44		
Airplane Airworthiness; Transport Categories.	4b	Free		5	
Aircraft Propeller Airworthiness.	14	.20	5/1/46		
Aircraft Equipment Airworthiness.	15	Free			(Being revised)
Aircraft Radio Equipment Airworthiness.	16	Free	2/13/41		Nos. 62, 272
Maintenance, Repair, and Alteration of Certificated Aircraft, Engines, Propellers, and Instruments.	18	1.25	8/1/49		
Pilot Certificates.	20	Free	6/16/50	1	
Air-Traffic Control-Tower Operator Certificates.	26	Free		3	
Aircraft-Dispatcher Certificates.	27	Free		2	
Flight Radio Operator Certificates.	33	Free	6/16/50	1	
Flight Navigator Certificates.	34	Free		1	
Flight Engineer Certificates.	35	Free	1/2/51	1	
Air Carrier Operating Certification.	40	Free		3	
Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States.	41	Free		12	
Irregular Air Carrier Certification and Operation Rules.	42	1.00	9/1/49	2	
General Operation Rules.	43	Free		4	
Airmen Agency Certificates.	50	.15	5/15/46	4	No. 254
Repair Station Rating.	52	Free		1	
Mechanic School Rating.	53	Free	5/—/40		
Parachute Loft Certificates and Ratings.	54	.15	7/1/48	4	
Instrument Approach Procedure.	60	Free		4	
Scheduled Air Carrier Rules.	61	Free		3	

NOTE: Manuals for which a price is listed may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Items marked "free" may be obtained from the CAA Office of Aviation Information, Department of Commerce, Washington 25, D. C.

Prototype Subcommittee Holds Its First Meeting

With 38 persons taking part as participants, advisors and members, the Technical Subcommittee of the Prototype Aircraft Advisory Committee held its first meeting February 12, 13 and 14.

The committee, representing all branches of the industry using feeder and cargo planes, as well as the military and several government agencies, found itself short of planes actually ready for testing under the terms of the main committee's charter, which is Public Law 867, passed last fall by the 81st Congress, but was able to settle upon a number of items in the specifications for the kind of planes desired in the 30,000 and 50,000 lb. payload classes. Planes deemed ready for actual testing include the B-45 and the Chase C-122, and possibly the Allison-turbine-powered Convair liner, although no decision has yet been reached as to when they would be available.

The technical subcommittee selected the ATA specifications written last fall on the kind of feeder and cargo plane desired as a basis for their consideration of this type of plane, and decided that convertability of this type from passenger to cargo use is an important feature. The committee agreed too that runway lengths as previously established for this kind of plane, should be reduced from 3300 feet to 2800 feet.

For the cargo plane in the 20,000 to 30,000 pounds payload group, the committee calls for a prototype with a payload of 30,000 pounds at a range of 2,000 miles with reserves, and the highest possible cruising speed consistent with economy. A specification written by a prototype committee working group just over two years ago for this kind of plane was accepted as basis for the development. Field sizes mentioned then, however, were considered too restrictive to economy and the committee agreed 5,000 foot runways are needed. Such a plane, members agreed, ought to be considered for use in cargo transportation across this continent, and proper speed would make possible overnight service.

Larger planes, carrying a 50,000 pound payload with a 2,000 mile range, would be particularly useful in trans-ocean service, and the committee is using as a basis for this development, a specification developed by an ACC *ad hoc* committee in December, 1949. The runway length desired with this kind of plane, the committee felt, should be raised from 4500 to 5900 feet.

Manufacturers will make studies for the committee on the relative merits of high and low wing cargo planes. Other members were assigned to compile and present figures on trans-ocean cargoes available for planes even larger than those with 50,000 pound payload, and on the growth and mail and cargo volume of present-day feeder airlines.

Flight Entries from Canada to United States Simplified

(Continued from page 1)

has been achieved as a result of a proposal made by the CAA's Office of Federal Airways in an effort to encourage the use of nonscheduled and private aircraft.

To make this simplified procedure possible, both the Customs and the Immigration and Naturalization Services made a number of changes in their normal procedures. Among the most important was an agreement to accept, as evidence of notification, the time-stamped flight plan filed in Canada. Until this concession was made, the responsibility for delivery of notification to U. S. authorities had rested on the pilot.

The CAA notification procedure applies only when

Joseph P. Adams Sworn In For 6-Year Term on Board

Joseph P. Adams, former Director of Aeronautics for the State of Washington, was sworn in on February 6 as a Member of the Civil Aeronautics Board for a 6-year term. The oath of office was administered by Board Chairman Delos W. Rentzel in a brief ceremony before friends and Board officials.

Prior to his appointment as Director of Aeronautics for the State of Washington, Mr. Adams was on active duty in the U. S. Marine Corps from December 1940 to April 1946. He served at various Marine Corps bases in the United States and also saw extensive service in the Pacific area, for which he was awarded the Legion of Merit medal.

Mr. Adams holds the permanent rank of Colonel in the U. S. Marine Corps Reserve (Aviation), which he first entered as a private in June 1929, graduating as a Second Lieutenant naval aviator in the Marine Corps Reserve in 1930. Since that time, he has been actively engaged in flying as Commanding Officer of Observation Squadron 8 of the USMCR, without interruption until mobilized for duty in World War II.

Mr. Adams was educated in the public schools of Seattle, and was graduated from the University of Washington with the degrees of A.B. and LL.B. He received his transport pilot's license in 1930, which certificate is currently effective as a Commercial Pilot's License. He engaged in the practice of law under the firm name of Adams and Smith, which partnership was dissolved prior to mobilization for duty in World War II. He leaves a private law practice now to come to Washington as a Member of the Civil Aeronautics Board.

Bolivian Pilot's Certificate Revoked by Board Examiner

Civil Aeronautics Board Hearing Examiner S. Thomas Simon entered an initial decision on Feb. 27 revoking for life the U. S. pilot certificate held by Erick Rios Bridoux, the Bolivian pilot of a P-38 aircraft which collided with an Eastern Air Lines DC-4 at Washington National Airport on November 1, 1949 resulting in the death of 55 persons. The examiner's decision may be appealed to the Board by the respondent.

CAB Examiner Simon found that at the time of the collision with Eastern, Bolivian pilot Rios Bridoux was operating his aircraft "in a careless and reckless manner" and on other occasions had violated the Civil Air Regulations of the United States. In revoking the pilot certificate, the CAB Examiner found that Rios Bridoux did not "possess the temperament to hold a United States Airmen Certificate in that he demonstrated a lack of judgment, caution and disposition to submit to regulation."

the first intended landing is at one of the 33 airports of entry in the United States. If a pilot wishes to land elsewhere, he must make his own arrangements with the U. S. services involved.

"With more than 7,000 border crossings annually into the United States by private and nonscheduled aircraft," D. W. Nyrop, Administrator of Civil Aeronautics said, "this agreement constitutes an important step in simplifying international air travel. All the U. S. and Canadian governmental agencies involved are to be congratulated on the cooperative, open-minded way in which they approached the matter when it was presented by the CAA's Office of Federal Airways."

CAB Extends Certificate Of Trans-Texas Airways

The Civil Aeronautics Board recently authorized an extension of the temporary certificate of Trans-Texas Airways, a local service airline based at Houston, Texas. The Board's order provided that the portion of segment 2 between Mission-McAllen-Edinburg and Brownsville, Texas, continue in effect through March 31, 1952, and other segments of Trans-Texas' route through March 31, 1954. Services between several locations were eliminated, the Board said, because of the small amount of traffic or because operations have not been inaugurated due to the lack of airport facilities.

The Board authorized Trans-Texas to serve Pecos, Texas, as an intermediate point between Fort Stockton and El Paso, Texas, and to serve Tyler, Texas, as an intermediate point between Dallas and Palestine, Texas.

The Board also amended the certificate of Pioneer Air Lines, a local service airline with routes in Texas and New Mexico, to eliminate its present authorization to provide single-plane service between San Angelo and Dallas-Fort Worth. Direct air service between these cities is presently provided by Trans-Texas, and the Board believes there is no need for a competitive service.

In deciding to extend the expiration date for Trans-Texas certificate the Board said that the data of record show continuing improvement for the system. This improvement, with other evidence of record relating to the economic growth of the area served, establish that there should be a continued over-all improvement of traffic, and a lessening of the carrier's need for mail compensation in the foreseeable future.

Member Harold A. Jones filed a separate opinion in which he took the position that the Trans-Texas certificate should not be renewed. According to Mr. Jones, the decision of the majority is part of a planned program for the separation of airline service into two systems—a self-sufficient trunkline system and a permanently subsidized local service system. He pointed out that on a comparative basis the record of Trans-Texas is among the poorest of the local carriers; that the renewal of its certificate means that in general the other feeder lines will likewise be continued; and that renewal for an additional term of years is, as a practical matter, equivalent to permanent authorization. Said Mr. Jones, "The local service project as developed is not in fact an experiment, but has evolved into a planned nationwide secondary air transport system, and may be justified, if at all, only on that basis. Thus viewed, it is my opinion that it reflects unsound economics, unwise policy, and an abuse of statutory power by the Board."

CAB Suspends Oxnard's Operations

The Civil Aeronautics Board recently ordered suspension of the Letter of Registration held by Oxnard Sky Freight dba North American Airlines pending disposition of enforcement proceedings against Oxnard in Docket No. 4590, or until further order of the Board, and directed Oxnard to cease and desist from engaging in air transportation.

The Board found that Oxnard Sky Freight dba North American Airlines, a large irregular air carrier based at Oxnard, California, had knowingly and wilfully conducted regular air transportation service in violation of section 401(a) of the Civil Aeronautics Act.

Suspension of Oxnard's certificate became effective seven days from the date of the order, which was the 27th day of February 1951.

"Farming" with Planes Brings Unusual Tasks To Tending of Fields

The new type of "farmer" who flies airplanes to tend crops and kill insects and weeds still has to get up before daylight, like his conventional counterpart, to get his work done. But here the comparison ends, as can be seen in the case of James W. Hazlip of Rolling Fork, Miss., a typical new "farmer."

During the month of August, 1950, Hazlip's busy time, he "farmed" over 12,000 acres in 30 days. He flew 105.6 hours on a total of 79 jobs and distributed 122,259 pounds of spray and dust over 12,804 acres—treating 426 acres a day on the average. To accomplish this work Hazlip had to load up his plane 210 times.

Of course, Hazlip was employed as a pilot for a company that works for farmers, but he "belongs to the land" today and gets his livelihood from agriculture. He is the newest kind of farmer in this changing day, but still he has to get up before daybreak and start his work. When the sun goes down, he still isn't through because he has to service his airplane and free himself from all traces of the chemicals before he can go to bed.

Pre-dawn routine.—The pre-dawn routine is caused by weather conditions. Pilots have found that the pioneer fliers who used to schedule their flights for 4 A.M. or 4 P.M. because there was "no wind" at these hours, had pretty good weather information. Dust for killing the boll weevil, or fine spray of 2,4-D for killing weeds, will drift an amazing distance in a light wind. And pilot-farmer Hazlip knows what trouble he can get into if the spray he uses to kill weeds in one man's crop drifts beyond the fence and kills the pay crop of the farmer next door. So he starts flying at the crack of dawn and flies perhaps two or three hours after dawn if the wind stays down.

The pilot-farmer can usually begin his evening flying at about 3 o'clock and can continue to fly on into the early darkness—the wind permitting. Then he heads back to the nearby field where his operation is based and there he probably has to take care of his plane, much as the old-fashioned farmer had to take care of his horses. Unfortunately, during the heavy dusting period, there is always a shortage of mechanics in the regions where he works and Hazlip usually has to double as his own mechanic.

One of the hazards which pilot-farmers, such as Hazlip, constantly face arises from the fact that some of the chemicals which they handle are dangerous. The skin can absorb enough of one of the chemicals now in popular use to cause death, and a warm, soapy bath is a must for pilots who use it. There is also the additional danger from inhaling any of the dusts and sprays used.

Other Hazards Faced.—On the flying side, Hazlip faces other hazards. Before dawn, he arrives at the field where he is to dust cotton, or spray to kill weeds. As a careful pilot he has examined the area on the ground, noting the location of lines of trees, telephone or power lines, rises in the land, and any of the obstacles in his path. His flying is "on the deck," or as pilots say, "he rolls his wheels on the plants." At the end of a swath, he must climb fast and high enough to make a wingover and head back down the field again with no waste of time or fuel. Thus he needs to be a good pilot, and he needs a high-performance plane if he is to cover enough acres to make money.

These farmer-pilots soon find out that they must be good to live long. They feel themselves that to be a duster a man should have a minimum of 500 hours of flying experience, of which 100 hours should be in the type of aircraft to be flown. He must be

Additional Puerto Rico Service Is Authorized by Board Order

The Civil Aeronautics Board today announced the granting of temporary authority to Eastern Air Lines and Riddle Aviation Company to operate air service from New York to Puerto Rico.

The Board in authorizing Eastern to carry persons, property and mail for a temporary period of five years between New York City and San Juan, said that "the outstanding need that has been established by the record is for the movement between the New York area and Puerto Rico of large numbers of people of limited means. . . . (and) the dominant need to be met is that for low cost service." The Board pointed out that while it has full confidence that Eastern in its actual operation over the new route will place the greatest emphasis on the operation of a service at the most economical scale commensurate with safety and at a fare scale geared to the needs of the low income group for whom the service will be most useful, no express limitation will be placed against the operation by Eastern of a service competitive with the regular or first class service provided by Pan American.

In the same order, the Board authorized Riddle to engage in overseas air transportation of cargo only for a temporary period of five years between New York and Puerto Rico via Miami, Florida.

Member Harold A. Jones dissented from the majority and filed a separate opinion in which he stated that, under the standards of the Civil Aeronautics Act, he could not agree that there is need for additional air service between San Juan and New York.

a sober individual—in both senses of that word—knowing his own limitations, and with a healthy respect for the capabilities of the airplane. He needs stamina, and a calm temperament, able to take the strain of two loads an hour, or 1200 pounds of dust or 130 gallons of spray, throughout the short season of his work.

Over 5,000 Planes Operating.—Today there are an estimated over 5,000 pilots doing this kind of "farming." They operate 5,000 airplanes, and they treat millions of acres of crops and range land annually. In early Spring they are sowing more than 90% of the entire California rice crop. Later, they will follow the wheat crop up to and beyond the Canadian border, killing weeds. During the growing seasons, many will be spraying mesquite and woody growths that make range land poor for grazing. Others will spray forests and woodlots to kill lumber tree pests. Killing mosquitoes in swamps, fertilizing land, and spraying herds of cattle for insect control are a few of the other jobs they do.

Here is a typical summary of the dusting and spraying activities in eight counties near Jackson, Miss., during the 105 days of the 1950 season, as assembled by Frank Wignall, an Aviation Safety Agent of the Civil Aeronautics Administration stationed at Jackson: 23,639,646 pounds of insecticides applied in dusting and spraying, 26,730 hours flown, 3,699 man days operated, 534,374 loads applied, 2,001 loads per airplane per season, 3,539 pounds per airplane per day, and 102 square miles of cotton acreage covered.

Most of the planes used in these operations are war surplus training planes converted by operators, and light personal type planes. Recognizing the need for a plane with more nearly the kind of performance desired, the Civil Aeronautics Administration has sponsored the development of a specialized spraying and dusting plane. It has good performance in small fields, will carry a good load, is very maneuverable, gives the pilot a wide range of vision, and protects him much better than in other dusters from the hazards of agricultural flying.

Large Increase Shown In Industrial Flying, CAA Report Reveals

Industrial flying, particularly crop dusting and related agricultural activities, increased 64 percent in 1949 over 1948, according to a detailed report, "Aircraft Use in 1949," published recently by the Civil Aeronautics Administration.

All other kinds of flying except instructional showed small gains. The 52 percent drop in instructional flying, however, caused the total volume of private flying to decline 27 percent from 1948.

"For the first time in the postwar period," the report points out, "the year 1949 saw a return to prewar patterns in private flying. With the practical completion of the veterans' flight training program, instructional flying, which had been the predominant form of activity during 1946, 1947 and 1948, declined precipitously. In the face of this general contraction in fixed base activity, personal and business flying held up surprisingly well.

"However, there was no evidence to indicate that any large-scale expansion of private usage of the light airplane was in the offing and it appeared that some time would elapse before the level of over-all activity of 1947-1948 would again be attained. Barring the inauguration of another government-sponsored flight training program, the development of light plane aviation within the next few years will probably be limited largely to a further gradual acceptance by business flyers and to an extension of the specialized uses of the airplane, such as crop dusting, aerial photography, etc."

Aircraft ownership outside the aviation industry has been gradually rising, the report notes. Owners employed outside of aviation accounted for 40,830 aircraft in 1949, compared with 32,290 in 1947.

The aviation industry still produced the largest single group of aircraft owners, 35,100 planes falling in this group.

Next largest group of owners are engaged in agriculture, and they hold 10,500 planes. Third largest group of owners are those employed in the automobile and garage service trades, with 5,350 planes, and professional and semi-professional men such as doctors, lawyers, dentists, et al., own 4,140 planes.

The report also lists the following owners:

Other wholesale and retail	3,760
Government, state and local	3,090
Petroleum industries	2,880
Transportation and public utilities	2,070
Construction industries	2,250

Planes owned by petroleum companies or individuals connected with the oil industry got the heaviest usage, logging an average of 178 hours, compared with 164 hours a year for planes used in the aviation industries.

Small executive type aircraft, that is, three to five place with 145-199 horsepower, were the only type to show an increase in number and usage. There were 10,590, used in 1949 a total of 1,877,000 hours, compared with 9,380 used 1,568,000 hours in 1948.

Copies of the complete report, prepared by the Aviation Statistics Division of the Program Planning Staff, are available from the CAA Office of Aviation Information, Washington, D. C.

Airport Turfing Information Given

"Airport Turfing," a CAA publication intended as a guide for those interested in developing turf for airports, is on sale for 25 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Various problems involved are discussed and methods used in establishing and maintaining a good turf are described.

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